

1935-II.

Lewistown, Ill. Aug., 1935
Waterford, Ill.
Otter Creek, Ill.
Havana, Ill.
Eriou, Ill.
Chauderville, Ill.
Green Valley, Ill.
Pekin, Ill.

p. 1

B. Slimek
Iowa City
Iowa

Aug. 26 - Down City gas, oil ^{1.75}_{.32}
 Aug. 27 -
 Toll. Ft. Madison 35
 Gas & oil, Canton, Ill. 2.00
 Lewisburg 1.62 Room 1.00 1.62
 Aug. 28 - Breakfast Lewisburg .46
 Dinner - Lewisburg .72
 Supper, Havana - .62
 Aug. 29 - Hotel 1.75 breakfast ⁵⁷ 2.32
 Havana - dinner .82
 Pie at Peckin' De 1.90
 Toll - Bunker Hill 1.25
 Supper, Mt. Pleasant .31

Aug. 27, 1935, Tues.
 Left at 6:23 am. 36138.
 S. on 78
 St. David ^{mt. ss} 184.3
 Bryant 187.2 ^{1/2}
 Lewisburg 199.0
 Turn n. 202.5
 Cr. Mt. Pleasant 203.3
 Road on return 204.1
 Return - 1/2 big cut 204.2
 Turn to Lewisburg 204.6
 205.6 - Last cut
 shells
 Back to fork 206.7
 Paving 206.8
 Lewisburg ^{mt} 210.2
 3.5 E.
 .8
 4.3
 Good Hope - 142.2
 #67 150.6
 Bushnell. ^{#9} 151.1
 #41 + #9 155.0
 Blyton -
 Firth - 170.9
 Canton - 178.5
 Spoon River - 164.9

a beautiful, clear day
at 76.6 on #3, east of
Downer, Ia a cut in road
shows 4-6 ft of jointed clay
looking like loess, but heavy
with samples.

Cuts on #76 in Ia - first one
9. shows only drifts.
At 90.1 + 90.2 cuts show drifts,
+ several bed of joint heavy
stuff above - no loess, but
looks a little like it, except
for vertical gullies + ridges.
Other similar cuts follows
The valley is narrow at
Narrow.

East on #95 the same gullies
heavy clay.

At 129 mi. on #95 two short cuts
show same gullies stuff.
^{small} Reticulated gullies + ridges running up +
down the banks.

At 163.1 - big cut - Spoon Rv.
Bluff - drift + ferruginous band
then loesslike ridged stuff.

At 165.5 - 2. bluff of Spoon Rv
drift seems to run nearly to top.

Other cuts E. are similar, some
with more top gullied stuff.

At 191.7 a grove of large trees
(Bur oak, Elm) - small gullies -
Otherwise great plain.
Not far from Spoon Rv.

6

At 192.7 on N. ~ 5 m
E. of Leanda 10 m
bed of light yellow
limestone with low
No fossils (see sample
just below this E.)

C.W.

1880 1882

W. G. cut

Bluff

Nov. 1/2 Rec. 14% — H. E. H. Semiston
4 ft. water marks

specimen from
M. E. 2074
14 Nov. 1988
85/14

Some of the
clockwise layers
are
steep.

at 204, I on return came
to side road (S. & E.) on
which we went ^{downstream} going out.

Here on main road, is a good
cut. Iron colors just like that
in the Goolibra we are in
sec. 14, but I saw no fossils.
We drove to fork at end of
pavement & drove S. on new
road to cut (see notes for yesterday)
in which many fossils appear.
This also has fossils in two
layers. Margin between the
upper & the lower layers.
It is continuation of depression
of this cut, for it is later & on
will return.

Sec. 14

We found a number of the
inland cuts without fossils,
but the cut in section 14
faces the Illinois flat & the
other one is not far from
Griffs.

✓ The loess is light yellow,
very soft & friable (though
very hard on surface) &
makes dust! — friable.

We drove back & visited
a toward place on main
str. in Kensington.

Aug. 28, 1935. Wed.

Corinth, Lewiston 211.9 Road S. to Elm 243, 2½
 Turn E. 212.1½
 cut 212.9, end pavement 215.6
 Turn S. 215.6+
 1st Fossil cut - 216.6
 cut on cliff, long 217.1
 Foot of cliff, 217.2½
 Back to parent. 218.9
 " #24 ^{Lewiston} 222.3½
 Corinth - 232.6
 Turn S. 223.9
 at road 2. - 223.9
 Turn E. 225.4½
 waterfall 229.1½
 Fork of road. 229.4
 (below cut) 9
 Back to #24 232.9
 " to Lewiston 235.6
 Corinth road E. 236.9 35.7%
 Waterfall road 238. 3½
 Shoon King 240. 3
 #28-Turn S. 242.7½

General level of prairie

Brayton (cont. on west side of base)
 10 ft. 6 in. sample 6 ft. from top
 1 ft. + Reddish brown
 5 ft. + sample 12 ft. from top
 A gray compact layer with more lenses & clayey
 10 ft. + a chocolate or reddish brown.
 Raw. Sample 1 ft. above road.

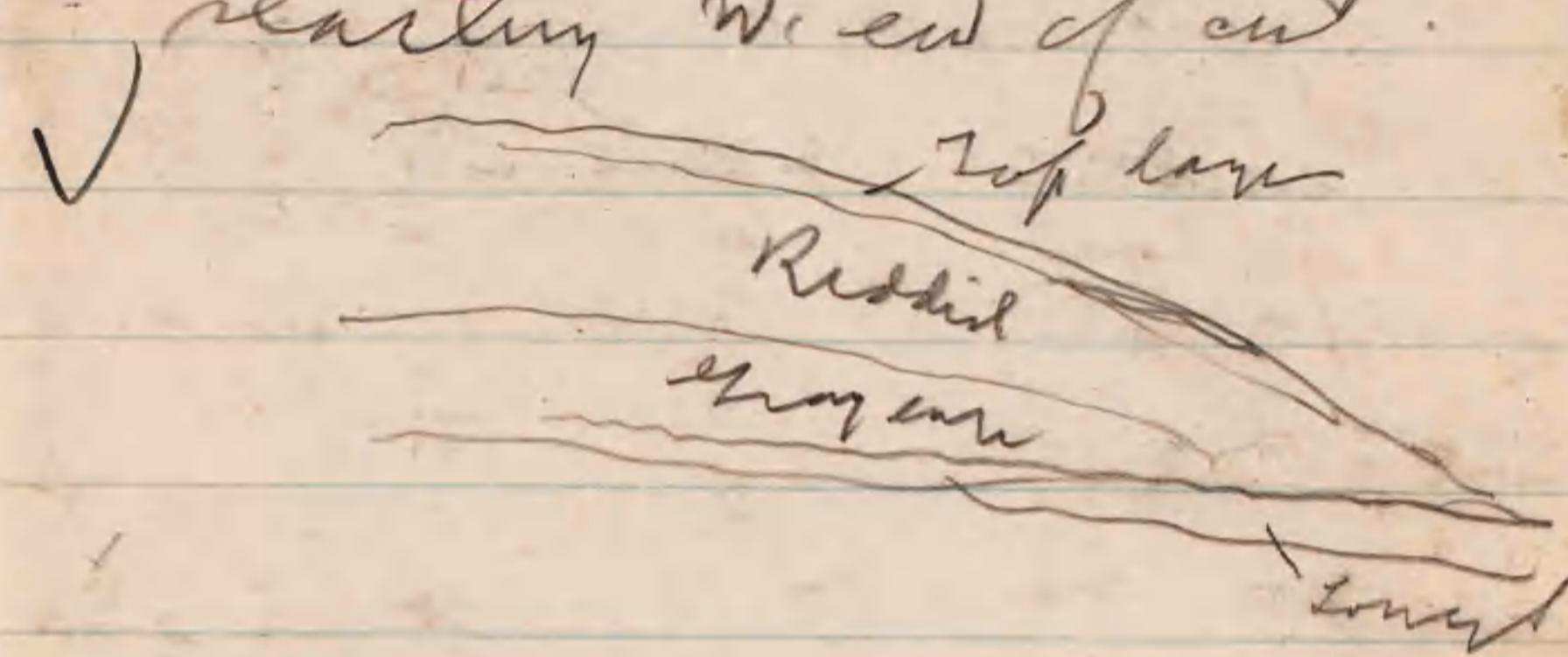
Cut at 2 1/2. 9 ft.

just 0.75 mi. E. of main highway in Laramie
 on paved road E.

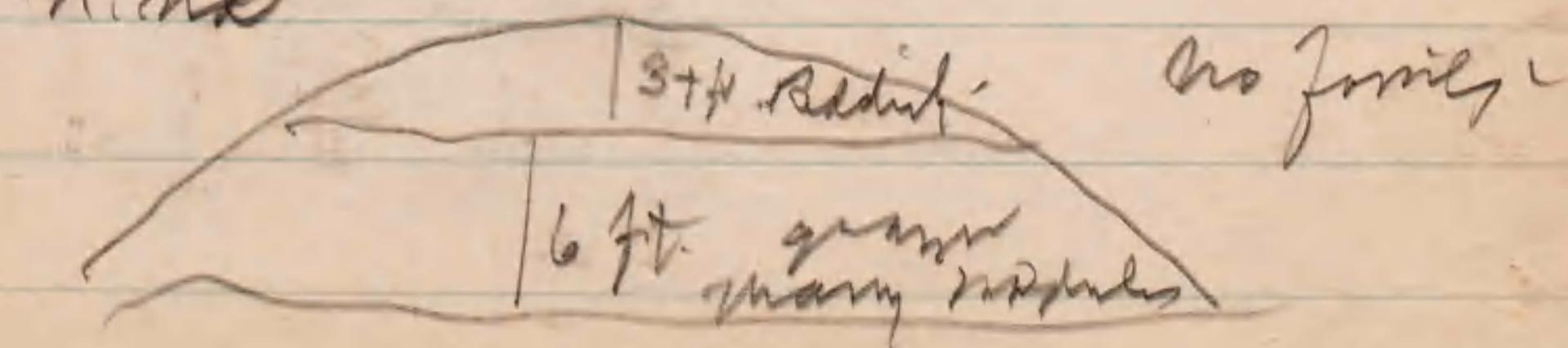
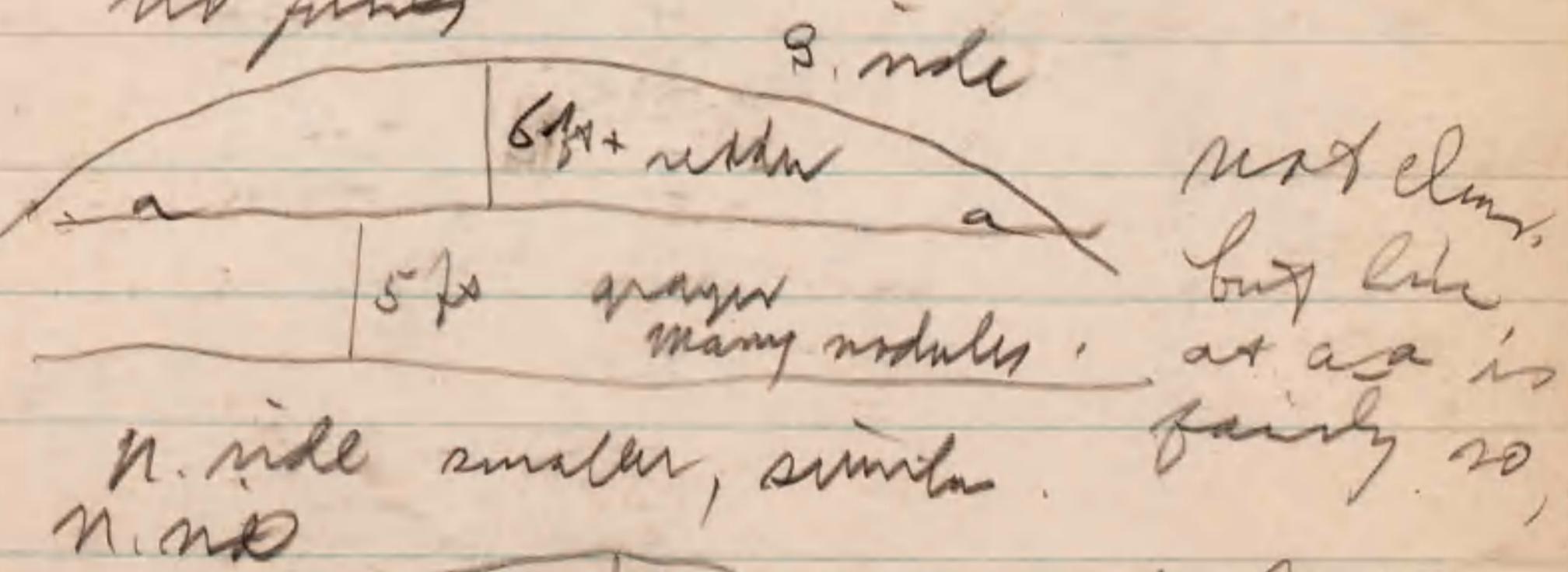
The lowest nutty or chocolate layer is
 gray layer is constant & thick. The reddish layer is
 "tunkey" (tulipan) & the top grayish layer is
 more lenses & sand.

13
 The contact between the two
 lowest layers is quite rusty
 N. side seems to be similar, but
 is more even.

The gray layer runs out before
 reaching W. end of cut.

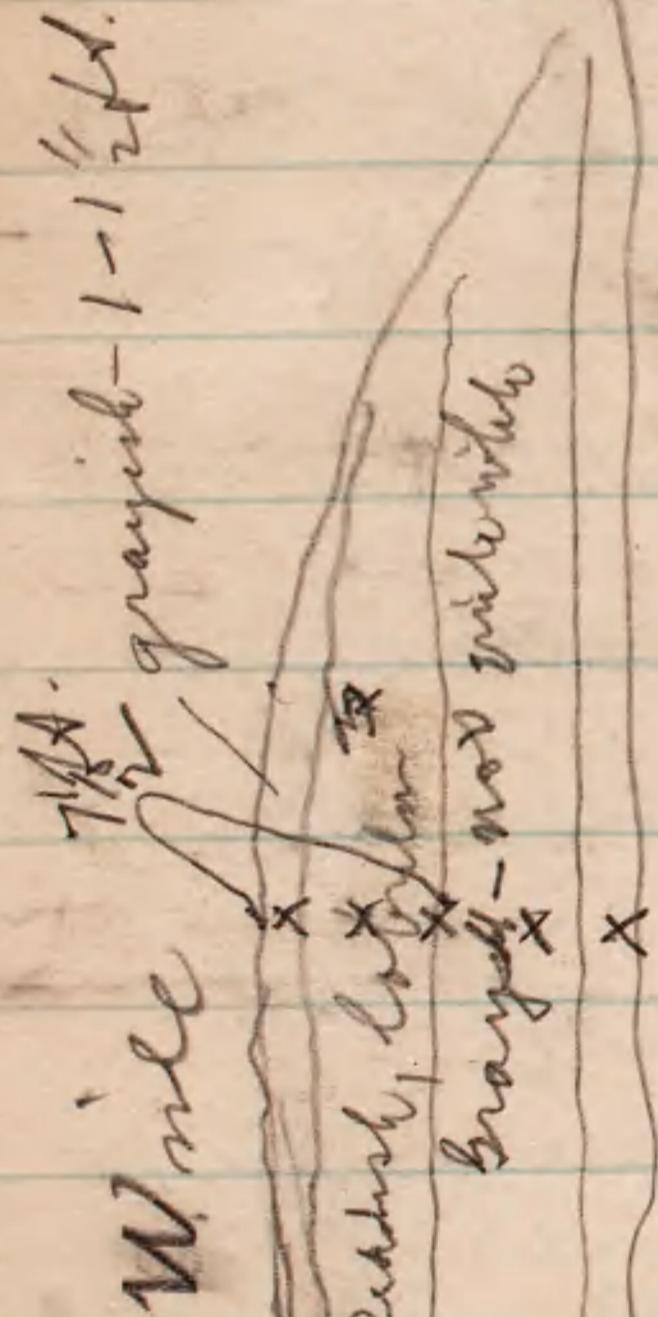


at 215.9, on road S., a cut about
 8 ft. Shows gray layer below (22)
 & compact, & reddish brown above
 no fossils



Other cuts S. are similar, but not clear.

At 216.6 - W. end of fossiliferous cut (as yesterday) on road S. of end of pavement E. of Lewiston, ^{1 mi.} (see p. 8)



about 140 paces (420 ft) long
E. side in a little gully at N. end
The gray zone more chocolate
towards base. & possible well
to base not faint chocolate.

15

uppermost grayish is friable & gray
on exposure. Reddish inside
Took sample less than 1 ft
Reddish layer - lobular, redder, ^{from top}
Took sample ^{3 ft.} from top
dry layer with reddish ^{3 ft.} layer
and two bands of shells. (see diagram)
Took sample at $7\frac{1}{2}$ ft. where
gray & reddish meet. Line
is quite sharp.
Took ³ samples of gray, one in
upper band, 1 in middle &
1 in lower band
gray layer

about ^{2 ft} Shell band ^{about 1 ft}

about ^{3 ft} Few shells ^{about 5 ft}

about ^{3 ft} Shell band

about ^{2 ft} about 2 ft

1 or ^{2 ft} ^{rusty} chocolate, crumbly

) The shells are more abundant in lower layer.

Margie also collected on the E. side (only lower part, she saw none above.) The shells are not as abundant as in W. side

We drove S. & stopped at 217.1. This is just below the two big cuts on the cliff.

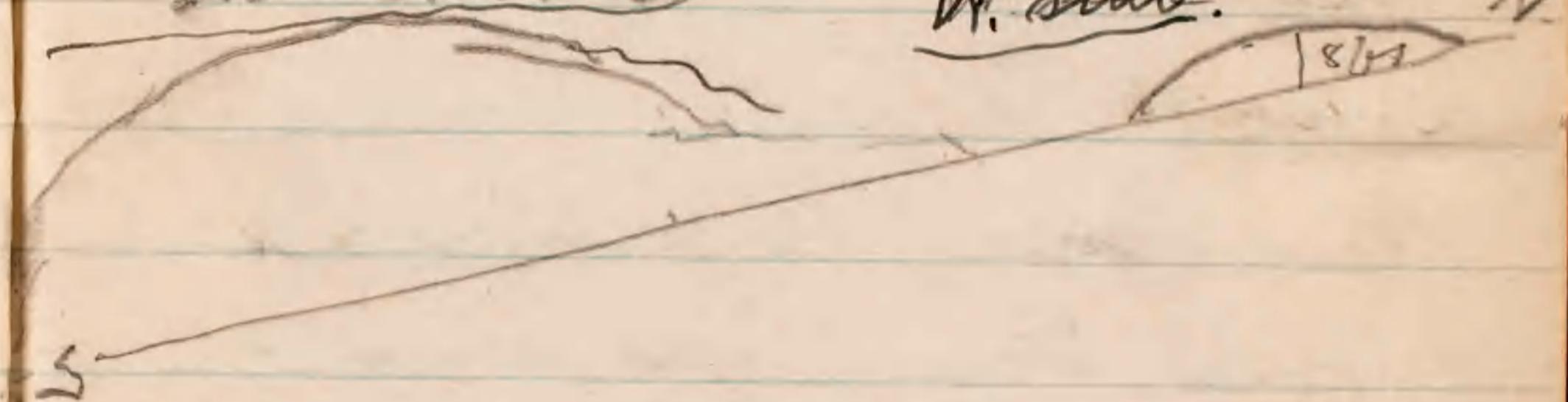
The upper begin at top, ^{1st} ^{extinct} about $\frac{1}{4}$ the distance down. The E. side is higher, shows gray loess below & a little reddish above. There is a shell band (intercalated) within the lower 6 ft. - could see some

above. This E. side is about 12 ft. deep.

The west side is about 8 ft. deep & also shows a few inc. oysters, *Polygon multilobus*, etc. Margie gathers shells

✓ on E. side

W. side.



5

The big red below is higher on W. side

✓ Margie finds shells from the east side - one hat about 5-6 ft. from top & to about 3 or 4 ft below top (no shells in this)

The other (lower) part she collects from lowest 6 ft., but there

were shells scattered between
(not much distinction.)

No shells in uppermost
3 or 4 ft. of the big cut
(lower cut) on W. side.

The shells ran through
upper half of gray layer in
this big cut quite uniformly,
& they are very abundant.
(Many are smaller, esp. Pol.
multilinata.)

Look variable of thin upper
gray fossiliferous layer in rock
thus from the big cut

The foot of the Bluff, at
edge of great Illinois river
flat, is at 217.2^{1/2}

at lower end (S.) of
the big cut at least
6 ft. of shaly rock
appears at base,
✓ road from N. E. comes
in just at lower end of
cut

Red dirt drifts above
rock - probably 8 or 10 ft.

W. side big cut out

100 ft

Ridge

Gray limestone

(one sample) 16 ft on more
chocolate layerSome limestone Reddish dark
limestone cut at least 25 ft.7' dark limestone to top of gray
- young gray, more
on E. side carbonaceous
shells with yellowish
shells

chocolate layer

On E. side a reddish (rusty) band
shows at top of gray layer.
Gray layer is also rusty where
it meets chocolate layer

Drove back to Limestone for
dinner & then south toward
Waterford. Stopped at center
of Sec. 3'. cut in road

↙ cut as a cut is about
cut best 10 ft, all light yellow
layer. Shows harder
stuff & drift toward
lower drift at (b)

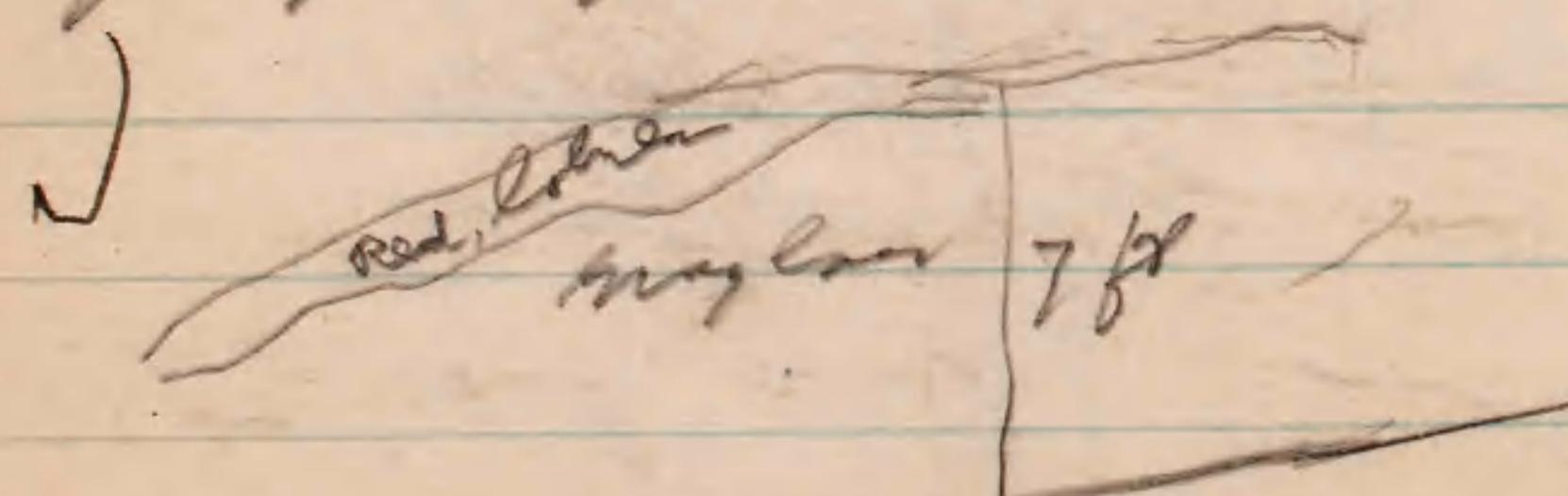
waterford

22

Moon River =
240.
S. of Moon River

at 245.1 on #24 - where
now town S., as cuts in
all four limestone. - 8-10 ft.,
light yellowish grayish fine
no fossils.

at 247.2 - on road towards
Union, Ill. a cut across
small ridge (limestone) facing
E. shows gray limestone
iron bands, doubtful horizontal
lines (may be fossils) & very
fragile fossils. S. side



Road
samples of each taken &
some fossils

23

an irregular (continuous) sandy
narrow band separates the two
a few shells run up
into this

on bank opp 248.6 on
return - may differ to

at _____ on return, going
up hill from fork

there is a long cut
Layer
East

for 2 ft no fossils
1 or 2 ft gray limestone
about 6 ft. charcoal
no fossils

on #78 toward Havana,
a side road (north) at
253.6+ is in a narrow cut.
at least 8 ft. of gray
fossiliferous loam, with
nodules of iron clay.
(See box of deeds)

This is well up - top on
a level with general
surface.

Big cut on #78 just
east of this shows
much drift below.

At 255.5 the bluffs
end & great river
flat begins.

We drove to Havana & stopped at hotel

Aug. 29, 1935, Thurs.

Started at 6:25

Hotel-Havana	262.4	Bluffs	337.1
Bath	271.3	Mackinaw River	
Sangamon River	280.2	Mackinaw River	338.7
Chandlerville	281.3	Pekin - RR.	347.5
Line cut	283.2	" - RR.	347.8
Chandlerville	286.8	" - business part	348.2
Sangamon River	287.9	2 (Reast to cut)	350.7
Bath -	296.8	at N. cut began	354.4½
Havana-hill	305.7	Lower embankment	354.7
1 st river N.	310.1	Rose bridge	356.5½
Road to Zolotka	311.7	2 river E.	
Road N.	316.4	Turned back	359.8½
#120	317.2	Back to Rose bridge	363.1½
Road N.	318.7	2 2 nd river	
#24 -	325.7	Bridge.	364.4½
Allen - RR. sta	328.2		364.72
Bluffs	328.6	#150 -	366.9
(low) on		above bridge	368.3
#122	333.2	Hannibal	377.4½
Brown Valley	335.7	7 th 387.5	388.5½
Sparta	403.6	Middle Grove	394.1
		London Mills	402.8
		#41	410.7
		Roseville	424.0½
		424.2½	

Left hotel at Havana at 6:25 AM
+ drove S. on #78, on an alluvial
plain with numerous timber remnants.

There are also numerous sandy areas
and low dunes. In one place large
area purple with *Eryngium v. pulchellum*.
We drove beyond Chadderville

on #38, + when road cuts

into cliff (at 283.2)
There is a fine long cut. on #78

I worked mostly on E. side
on upper larger (deeper) part
beds run all through this
quite abundantly (some as
P. monilis + P. multilobata
colonies) + extend clear to
top.

I took a sample from

a foot from top, + another
12 ft. lower.

The sand grades up gradually
into fine light yellow loess /
through more than a foot.
Total thickness of loess is
about 15 ft. + about
15 ft. of sand below at
highest point of cut.

There are many nodules,
but no sign of iron.

An old dune.

Took box of clay about
9 ft from top.

Two spots at same level

6 ft apart

Burlingtn 457.5
Burlington 457.8
West Burlington 460.6
Davenport RR Sta. 469.9

Media 435.8
Middletown 466.0
New London 476.4

Keokuk 456-
Bridge 456.5
Muscatine 484.8

Galena 448.1
Home 534.9
36673

Cinnabon

Maryland

Buck Key

X

Sample

1/2 ft

samples

1/4

1/2

Laminated
yellowish sand.

15 ft

Started number
of old, multilayered

main bank E. side & above

This is higher & with W. side is lower, & most
thin about 1/2 ft.18 ft +
calcareous

a lot of shells here

The lower evidently slopes down towards
west, & on W. side is much lower on the east,
but on this is only about 11 or 12 ft.
This is westerly country - on drift, but is
very dry near

The Sangamon has a good many bars here. Its valley & that of the Illinois blow trees.

What an opportunity for loess! Broad sandy flats & river bars for source, wooded low bluffs for anchorage!

These cuts are as overgrown & slumped that I could not see that there was interstratification. The transition where I noted it was gradual & lower part of loess was quite sandy (fine).

Returned to Havana at half past one.

We then drove east on #122 over wide bottom, with scattered low dunes in 1 $\frac{1}{2}$ miles - mostly trees on them.

Evidence of low dunes everywhere. Wide open flat fields - (all seem to be sandy) evidently originally treed.

Began 315 again more dunes. Gradually better soils appear, looks as if the rise is gradual, but low scattered dunes still appear at 323.° etc. At junction with #24 low bluffs in visible across 1 mi S.E.

From town at 328.6 - low bluffs appear about 1 mi. 2, No. 24 runs on this flat plain - no bluffs in sight at 337-337.1 we drop down low bluff to R.R. (low 20' in 50')

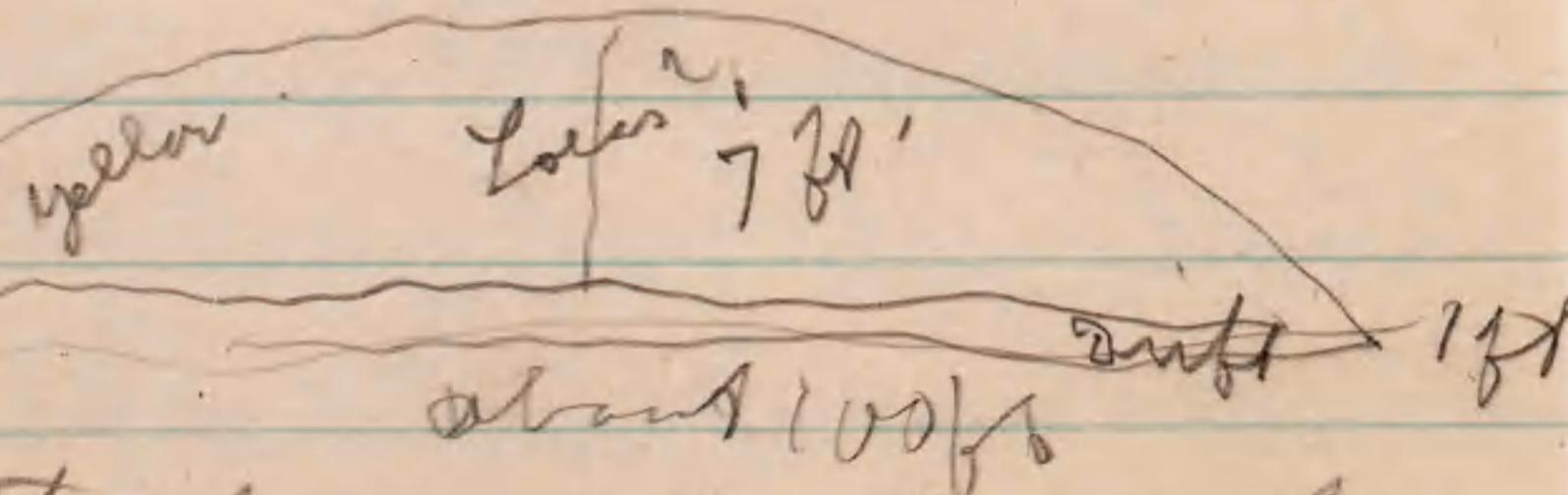
E. of N. Pekin & Pekin
bluffs appear - close opposite
Pekin.

We drove E from Pekin
on 27 up the creek valley
Inched back at top of hill
at 359.8^{1/2}

A lobular tree-like (bry) stuff
yellow when weathered & some bluish
underneath surface, at 370.5

Drove west on #124

at 407.5 a cut



The top layer may be loose, but
it is quite lobular. No fossils
(see sample)

at 447.2 on 34 a good cut
at 447.7 - sand,
at 447.8 - sand & loam
This is at bluff on E side

1935

expenses - oil & gas, etc. \$1.00

9/13 Gas, oil - market value. 2.75
Toll, Robish 2.25

Hardin, oil, gas 1.81
Genesee - Room 1.00⁰ supper 10⁰

9/14 - Breakfast .45
waterloo, dinner 1.65

Prairie du Roche - gas 1.77
Supper, Cambria 1.72

9/15 Hotel^{2.00} - breakfast 1.25 3.35
Shayencolom - repair, gas oil 10⁰ 1.89

," dinner 1.67

Bridge - toll - Cape Girardeau 1.00

Supper, Jackson, Mo. 56

Room, Jackson 1.00

9/16 Jackson breakfast .50
Marble Hill 2.22

Lintonville - toll fixed 1.50

Patterson, lunch 45 1.45

9/17 Mineral - Riverview Hotel
Room 1.00 2.50
Gasoline 4 miles 1.58
Greasing car 75⁰ gas & oil 1.25 2.00
Gallen, Amherst 61
near Lebanon, Mo. gas 1.60 oil 42 2.02
Concenton, supper 1.40

9/18 " Hopkins Hotel room 2.50
" Breakfast 1.50

Farmall - county 85

Bragg - repair - for 2.01⁰ 1.50

Columbia, gas, oil 2.46

Market + E. 6th st
altby -

184.2

35

231.1
227.3
3.8

Sep. 13, 1935. Friday

Started at 37040. - 7:30 am

Home - 0
2 - #161 - 16.8²
Mt Pleasant 38⁰ + 10.7²
Donnellon² 72.3¹
612 - #161. { 83.3
{ 83.4¹
Kirkbank ~ 93.1 (-1)
Bridge - W. 93.3
" - E. 94.6²
96 (turn 5) 95.2

East to Wauke 99.6

Warren - 103.3
Return " - 105.5
" to #96. 109.1

Quincy, turn 8² 139.4

Tinderhook #36 161.9

54 + #36. - 180.4

Pittsfield (turn 5) 184.4

Detroit (turn 5) 191.4

Milton - 196.5¹
End pavement 197.5¹
Royal (detour) 206
on #108 #38 begin 2175¹
Rampart¹ 2175¹
Nardin¹ 227.3
#108 end 2175¹

The day is pleasant, - sky with thin clouds partly covering it.

At about 68 the pasture fields are covered with Bidens (trichosperma) in fine flower. Same at along - below Donnellson.

Evidently the large patches are on corn land lying idle (paid for!) & is only bidens a nuisance!

In Illinois S. of Hamilton - big patches of Bidens.

Turned to Warsaw but found no good cuts. Seemed to be only a thin veneer of loess, - 4-5 ft, & I saw no fossils. Returned to #96 & drove S.

229.6
227.3

230.6
227.3
3.3

231.1
227.3
3.8

valley of the Mississippi at & below Kickapoo is quite narrow, - here little loess. Drove to Hardin, Ill. & then W. At 229.6 - a cut at top of Miss. Bluff. A loose yellow loess. Shells only on surface, - recent? (See sample.)

At 230.6 - a low cut (6 ft) in gray loess with iron belt (see sample) & 2 shells (loess?) On low ridge ^{falling E.} in valley - w. of top, At gentle slope facing W. on N. side road at 231.

A yellowish (grainy) loess, with iron tubules & P.R. mussels, etc. All shells. Cut low, 10-12 ft deep & little sandy drift shows below

a little farther down.

At 231.5 a similar elevation
borders the roads. Surface
+ base of clay.

This is ~~the~~ foot of
low bluffs at edge of
valley.

Turn back at 231.8

We drove back to Hardin
and then to Grayville where
we spent the night at a
Tourist Place.

The high ridge (edge of rock)
extends between the two rivers
I away south, separating the
broad valleys of the Illinois
& Mississippi Rivers.

W. end of Cliff City - action.
Marker + E. 6th str. "

		2nd 9 th str 1 st to
		less on 9 th to Abby + 1 st bluffs
		more
		Sep. 14, 1935 - Sat.
		Started from Jerseyville, intended of #38 + #67, at 6:27 AM.
jerseyville, #38 + #67	258.6	Granite City 339.0
turn E #109	267.2	E. St. Louis ^{at bridge} #3 347.2
Grafton	275.2	Cahokia
Park (turns back)	281.4	Bluffs near 3- 355.8
Grafton (return)	288.5	20 rods, and a flat,
Turns to Elsah	294.6	294, cut into bluff 358.4
Elsah	297.4	(not main bluff)
Back to #109,	301.2	Chambers 360.4
" " #67	304.3	main bluff 361.1
turns to Alton		Waterloo 368.0
turns to		Lean " 369
Clifton-Terre-	310.8	Red Bird 382.8
Back to #67 -	311.6	Rumah #155 388.2
action	317.1	Prairie to Rocker 395
" down turn	318.1	Turned at 395.4
Return " " "	319.8	Return to #3 402.4
green beans	322.9	Evansville - 406.8
Wood River	325.8	Ellis Grove - 412.9
Hartford	333.5	Chester skip 5 ft 433.1
Mitchell		
Marshall	336.3	

A beautiful morning, - clear and pleasant.

We started S. on #67 & went on towards Grafton.

The last part of the drive to Grafton is down a valley or canon, wooded & with ledges.

We drove up the Illinois to the park, but saw no deer.

Did not yet reach the ridge between the rivers.

There are cliffs & no canyons. A few sandy slopes at last.

We drove down (at lower end of Grafton) to where the

Illinoian & Miss. come together. They blend gradually. The banks between by sandy & peaty cover with shrubs & low trees. The timbered flat between the streams seems to extend up for several miles.

Drove back to #67. and to Alton. Elsah is in a canon & the cliffs at river are high.

Drove back north to #109.

We turned E. to Clifton Zebra, - a rather pretty drive down a wooded canon to the Mississippi. No prospect for fossils here and we drove back to #67.

Alton, Ill.

At Market & E. 6th str

there is a fine exposure
18 or 20 ft high, vertical

face. It is made of
"pink" loess from top to
bottom & there is an
scatter shells. Saw
some $\frac{2}{3}$ of the way up.

Mostly large Pol. nodules,
in one place crowded
in a layer 2 or 3 ft wide.

Shells mostly broken
1 Pol. appears

Took sample & box
of clay.

✓ We also drove out to
cliff street and found our

former exposure, but found it
covered with stony & we found
nothing.

Drove S. to E. St. Louis

at 322.9, 3.1 mi. S. of Alton,
there is a cut of yellow loess
on E. side of #67 just a little
above river flats on a "foot" of
the bluffs. Some nodules
and a few fossils. Took
sample of clay.

Other cuts appear, esp. on lower
road to E. at 323.3, but I
saw no fossils.

Rest of the way to E. St. Louis
#67 runs on the flats
(wide bottom) all along.

We drove S. on #3 and about 1 mi. beyond Columbia we cut into Bluff and upland to Waterloo, where we stopped for dinner. Then drove on to Ruma on #3, & turned W. to Prairiey Rock. Dropped down a cañon to river bottom, Bluff about cliff. A deposit near base is quite sandy.

At Chester we drove toward Ferry. Near bottom of hill a big cut (at one side) shows bouldery drift below, heaving reddish clay above & yellow (or pinkish?) loess on top. No fossil see sample

Look back 5 pages 45
to p. 39,

Ferry	423, 6	
Chester	#150	425, 3
Rockwood	433.3	Carbondale 470.9
Bora-road	435.3	Marion 487.3
Glenn	440.4	
Crain	447.7	
#144 -	447.6	
out #150.	451.4	
Back to #144.	455.0	2.9 mi.
Cut in Bluff.	456.1	1.1
Murphybox	462.6	455. 24.0
		1.1

(Crathey)
Big bars in river below, but valley not very wide.
Bars below not noticeable
Much forested bottomland at about 432 +
we follow base of bluff to hill beyond Crain.
at 451.4 we turned back & went about 10

a high isolated hill, looks like a high wooded island.

The bottomland here has a lot of oak - mostly Q. palustris.

Stopped at cut on #144 S. E. of Crain (at 456.1 $\frac{1}{2}$) and I took a box of clay with fossils. Many fish bones, some shells. A yellow loess. I took clay from block which slipped from other $\frac{1}{3}$.

This is down near base of long slope & out in rows.

Rock (shell) appears high above the fossiliferous loess

on this slope.

The talus at top looks like that of general upland.

There are numerous cuts toward Murphy, but top layer seems to be the sharp-ridged (vertically) Tonge open clay.

Rock shows in some,

We followed #13 to Murphyton, then to Carbondale, where we had supper, and on through Marion to Harrisburg, where we put up at the Hornung Hotel.

A warm day!

Sept 15, 1935 Sunday

Left hotel at 7:15 AM

Entered 1st spur of Ozark
(ent just a little N of #13) at 515.8

A lower spur does not
quite reach the road further
east.

A low cut (3-4 ft) in road
at 517.1 shows tabular
heavy (pointed) clay. It
looks loam-like, but is
evidently not loam.

You can see the Ozark ridge
running E. parallel with the road
for a long distance.

The spur we crossed is just
a little northward extending
small spurs, ^{outliers} eastward, cross by roads

Harrisburg	509.7	Vienna	618.5
Ozark spur	515.8	#37	623.2
	516.1		
2 nd spur	516.4	Anna	638.7
#1 -	524.1	Jonesburg	640.1
Shawntown	533.0	Ware	647.8 ^{1/2}
" hill	536.	Turn ^{#150}	
Turnerburg	536.5	Wolf Lake	652.3
Shawntown	539.7	Oldridge	656.6
#1	548.7	Turn back	
#142	552.8	Road 8, -	657.6
#45	Harrisburg	Bluff 8, -	659.0
#34	563.0	Turn back	659.1
Rutherford	571.5	Back to #150	660.5
along 574-Ex Grassy			
Herod	576.6	Wolf Lake	663.6
Top of low ridge	577.6	Ware	668.1 ^{1/2}
(High pt.)		#146	668.6 ^{1/2}
Road fork	586.	#150	679.7
Golconda	595.2 ^{1/2}	Bridge	682.9+
at 602.3 - Ozark on		8, -	683.6
Main Banks	604.2	5	
Top of spur - 604.8		Turn 6	694.0
Grantsburg	609.9		

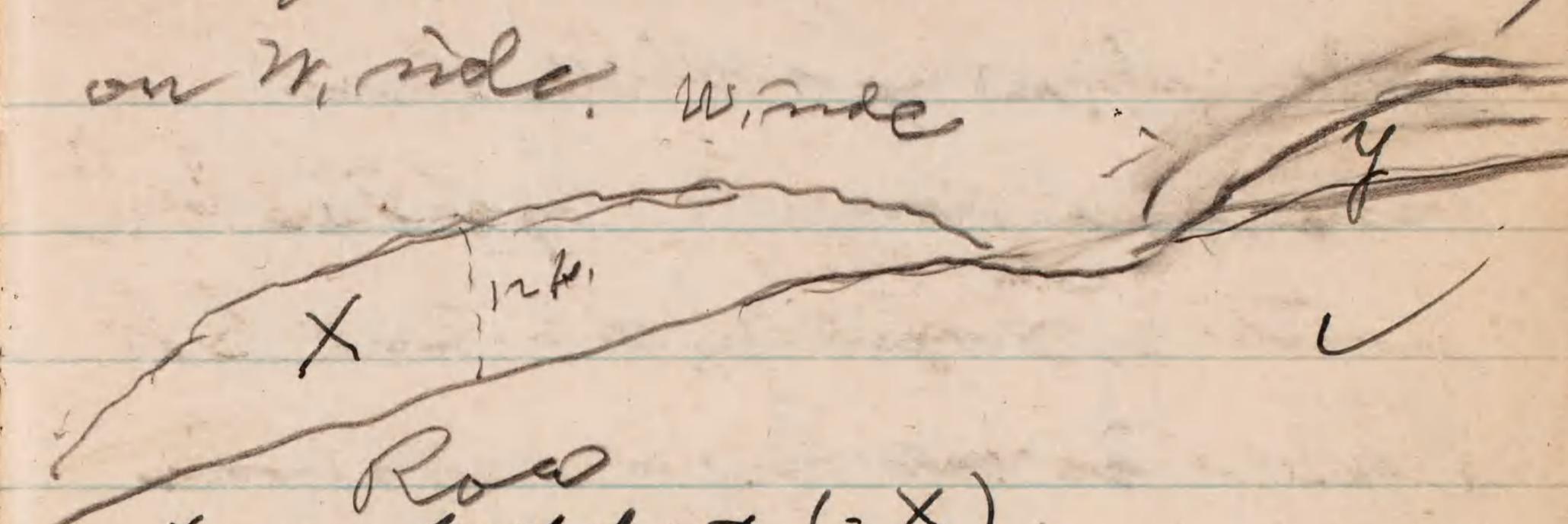
at 521.5 there is a long low cut, just east of bridge on W. Fork Saline River which shows about a foot of yellow loess (weathered, grayish), ~ about 6 ft of red joint clay. No fossils. Took sample of loess.

Other cuts E. appear similar. The Dyers sprn S. of road evidently runs E. quite to the Ohio.

A long sprn of the Dyers cuts abruptly out far (1 mi?) S. of road.

We had car sent in road & drove N. to Shawnee town hill. Here there is a fine exposure of loess et. well

up to top, but the base $\frac{1}{3}$ is the least. Weathered mostly on N. side. W. side



This is a compact heavy yellow loess of the older type, with gray streaks & below almost all gray. The fossils are mostly from the lower $\frac{1}{3}$, but a few are scattered above. They are very fragile.

About 3 ft. from bottom there is an irregular layer of very large nodules (see sketch) & shells are plentiful here, - but fragile!

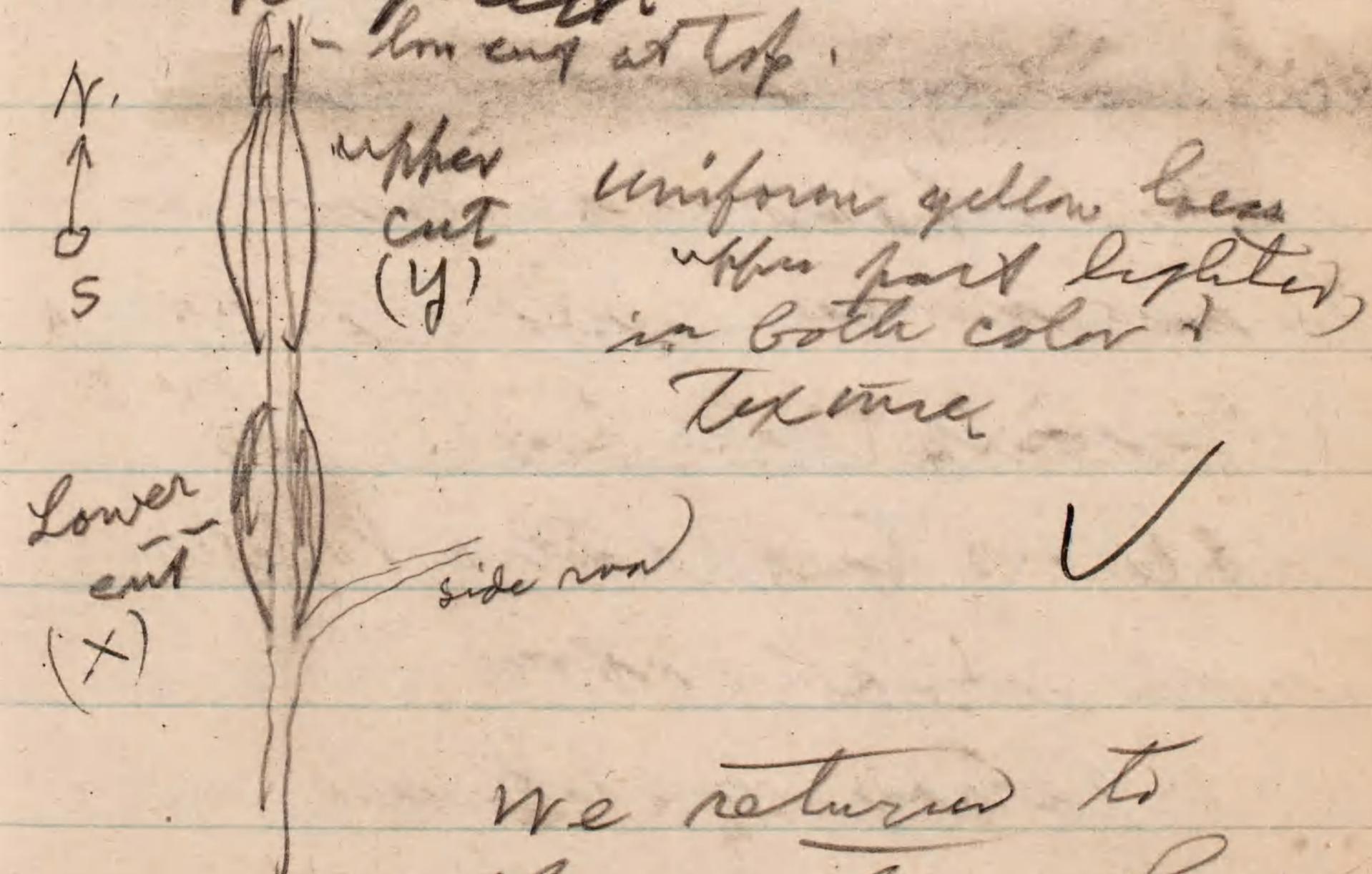
The bank runs up almost vertically.
The upper part of cut is about $\frac{1}{2}$ of total.
It shows about 4 ft of red mud & about 8-10
of yellow loess of same
type, but no fossils, or
possibly very few.

✓ The upper cut (Y) shows
uniformly yellow loess
(fumilif.) copper on few 4-9'
upward but with a light
mud-like loess.

Lower part of upper cut
about 12 ft. Collected
in loess 4-5 ft. mostly by

drilling. Some scattered white
shells finer than in
lower cut. Took lot of
clay & sand, also a
few nodules.

Crosses up to top
of hill - side and near
top part.



We returned to
Shaunelton & had
dinner. Drove west to #45

at Harrisburg and then took # 34 towards Golconda. We followed a gap in the Ozarks most of the way after we entered.

At Golconda we took #146 west to Anna & Jonesboro.

This is rough country entirely in the Ozark ridge, but with higher ridge parallel to road some distance N. of it. We drove to Ware and took #150 N. to Aldridge, then came back and a mile S. of Aldridge we took a new rough road (C.C. offin) & drove E. to bluffs. There are

great cliffs here & wooden bluff, but I could see no loess and we returned to #150, and drove back to Ware and to #146, which we followed to Cape Girardeau. We crossed the big bridge and followed #61 - #34 to Jackson, Mo.

We took a room at Daugherty's, had supper, & after cleanin' up, retired.

Just before reaching Grantsburg on #146 east of Vienna, at 609.6, we saw a number of small cypresses on the wooded bottom land.

Sept. 16, 1935, Monday.

We drove down #34 and at #67 x #34 we washed the boxes of clay.

W. of Hardin, Ill.

$14 \times 10 \frac{1}{4} \times 7 \frac{1}{2}$ inches = .62 cu. ft.

Upper cut, Shawntown hill, Ill.

$14 \frac{1}{2} \times 12 \times 7 \frac{1}{2}$ in. = .76 cu. ft.

Red loess - about 2 ft.

$9 \frac{1}{2} \times 10 \frac{1}{2} \times 7$ in. = .41 cu. ft.

Lower cut, Shawntown hill, Ill.

$16 \times 11 \frac{1}{2} \times 6 \frac{1}{2}$ in. = .69 cu. ft.

Yellow loess, S.E. of Crain, Ill.

$13 \times 11 \times 6 \frac{1}{2}$ in. = .5 cu. ft.

We drove to the Sand. Baker St. Park, but this ^{is} chiefly a fishing park, with the St. Francis River a clear

at 6:41 am
Reading - 37758

at 6:41 am

When we came in #94.		
Jackson, Mo. #25.695.6	Ellington	814.3
#34-left. -	Deer Run P. rd	818.5
Marble Hill.	Park Elevation	819.7
Interville	Tower	824.6
" (bark)	Back to Roof	826.8
Glenallen -	Back entrance	828.4
Grassy -	#10 (p) -	829.7
Clubb -	Ferry, current Riv.	839.5
#67 -	Creek.	848.2
St. Francis Riv.	Eminence	852.6
Park way	Entrance along	858.1
Entrance ^{Sam} Baker	Alley Spring	858.7
Iron back	Eminence	864.6
Park way (return)	Con 106.8	864.6
Return to #34	884.6	
Clark's creek -	695.6	
Patterson -	189.0	
Piedmont -		
Leiper ^{road}	782.5	
Black Riv.	782.9	
Garwood,	793.9	
Deer Run Park Rd.	794.3	
	796.9	
	807.6	
Row to Van Buren Park,	809.6	

stream running over a pebbly bottom. We then ran up to Ellington, and on about 5 miles west & south into Deer Run State Park. Road in park runs on narrow ridges, and in openings I noted following.
At top of ridge in Deer Run Park - opening.

Euphorbia corollata (L.)
desmodium (Linn.)

Andropogon furcatus
" *scoparius*

Onoclea sensibilis.

Heuchera - alnea

Panicum capillare

Rubus occidentalis

Ambrosia artemisiifolia

Franseria

Solidago

We ran down into the creek valley & then on a loop up, & along the ridge to entrance.

This park is not outstandingly attractive and they are just making a single-drive road on the loop which we follow. A C.C. Camp is located here.

We were quite disappointed here. We then followed the new new gravelled highway #106 westward to Eminie. This a fine mountain highway, though forest most of the way, with occasional clearings and mountain shacks, rail-fences & little patches of corn or smaller patches of sorghum. Few cattle, and not frequent razorback pigs. We have been passing rail fences all day; some were 8 or 9 rails high. Log houses

are also quite frequent. All along #106 there were glimpses of fine mountain scenery, and occasionally from higher, more or less broken, tops splendid panoramic views were presented, with prominent wooded ridges & peaks appearing on both sides.

We drove west from Eminence for about 6 miles to Alley Spring State Park.

Here a great spring bubbles up near foot of great cliff.

Some of the E. C. Camp men said the large pool formed over & from the spring

is 48 ft. deep. A part of the stream from spring (at edge of pool) is deflected and ran a grist mill, still standing.

A good sized stream with rocky bottom forms the outlet. From the pool and ^{to a point} down the stream for at least a quarter of a mile the rocks at edge & farther out are covered with Goniobasis. Some were clinging to rock in a very swift current at the outlet of the pool & on the most exposed sides, while others favored the sheltered sides facing downstream. Collected two bottles of snails in a little while. The water of

The pool is a pale
(washing indigo) blue.

We drove back to
Eminence just about dark
and put up at the
Hotel.

The mountain region has
had little rain and plants
show it. Some of the trees are
beginning to change the color
of the leaves.

We noticed a number of small
tulip trees and a species of
Pinus is common, especially at
higher altitudes. Some parts
have been cut over for lumber
and in some places a good

Jacks Fork comes from 63
alley spring

many young pines are coming
on - mostly 4 to 6 ft. high, - some
taller.

On #106 we crossed Current
River on a Ferry. The stream
here is clear and is said to
provide good fishing.

I could see no snails, but I
could not make a thorough
search.

A bridge is to be built
here.

In quite a number of places
on #106, cement "dips" are
constructed where streams cross
the road (or dry channel) to
provide outlet for flood.

It is simply a depressed cement
pavement. Road dip

Sep. 17, 1935, Tuesday,

Very misty early, but clear up by 7:45 when we started, after having car washed.

We drove to Round Valley Park along (very fine views) mountain highway.

The spring is smaller than Big or Alley Springs & the shallow pool in canyon with water-cress in fl.

In the rapid stream & along edges, on rock etc. mussels are plentiful.

(See gas & Tabled Bitter.)

"Say covered with dead zebraed trees & vine ferns!"

5- 64 10 16 5 Pasqupee River 65
con #5
7:45 am #64 - 1031.3
Eminence #106- 865.6 2 Bennett Spring 1043.6
#19, Current River 878. Return
Spring Valley River 878. Entrance. 1043.9 1/2
Entrance 878.3 Back to #5 1054.2 1/2
" (back) 878.4 Decaturville 1070.1
Current River 878.6 Sinking Creek 879.9 Camdenton 1078.8
Sinking Creek 879.9
Co River K #5 903.6
#119 908.8
914.3
Entrance Montauk 919.2 Park
Entrance - return 921.5-
#E.- 926.3
#32. 930.4
return 931.5
Salem 942.2
#72 943.5 1/2
#63. 968.2 1/2
#66 (Rolla) 968.5 1/2
Junction #66
Arkansas road 80.9
Little Piney River 981.1
Little Piney River 990.3
Devil's Elbow (man)
Waynesville 999.
Hazel Creek 1015
*Lebanon 1030.4
Lebanon 1030.8

at about 8.95 mt passed
into more gently rolling cutbank
country.

We drove on #10 ()
to Montauk St. Park, then
Current River river. There is
quite a valley with rocky slopes.

We drove toward Lehman and
and stopped at the Gasconade
River on #66 & collected shells.
About 5 spec of *Unionidæ* &
Goniotinia, *Pleurostra* & *Campbellia*,
Atr. Planaria.

The stream is somewhat
rocky and rather rapid.

The *Goniotinia* was mostly on
rocks, the *Pleurostra* on sand.

We drove to Bennett Spring Park.
Here a big spring bubbles
right up in a valley &
seeds out into a stream.
The pebbles at edge of big
pool & the stream are dotted
with a little Goniobasis. In
the more sluggish pool above
I found *Pleura* & *Helisoma*.
Water-cress grows in everywhere.
a fishing park.
We drove back to #5, and
followed #5 to Caudertown
where we put up at the
Hopkins Hotel.

This is evidently a resort place.
I picked shells & after cleaning
up, retired.

This part of the Ozark region from Montauk N.E. west is not so rugged & higher hills are visible only far to S., S.E. & S.W. Even Montauk Park is just at edge of the hills. - at Montauk Park we have the beginning of Current River, here a fine good mountain trout stream.

They told us there were about a dozen springs, but we visited only one. None are (evidently) large, but all together make a nice mill-race like stream, with

occasional larger pools in which fish could be seen.

We drove up to Rolla and then took #66 to Lebanon rather than risk the poor gravelled roads across from Montauk to Lebanon.

The vicinity of Bennett Spring is also not the most rugged (though somewhat rough) and this is chiefly a fishing & picnic ground.

This day's drive was mostly a good continuation of yesterday's fine experience.

177

Sept. 18, 1935 - Wed.

Another clear morning.

We saw the Lake of the Ozarks & the dam at Bagnell, which, of course, is rather small when compared with the Wilson dam.

The lake, being a channel of the Osage River, is very irregular, long & narrow, with numerous bays. As the whole region seems to be well wooded, it makes an attractive picture. The highway runs on the dam.

We had our first break 2 mi. S. of Bragito, but we ran to a country station & bought a new belt and then to Bragito, where we had a new tank.

started at 6:55 a. m.	2nd	84.3 71
6 th = 89.5	84.5 ¹ ₂	
6 th = 90.5	85.5 ¹ ₂	
on 5 mi, we are .05 less		
Camdenton	1079	
Linn	1082	8 - 92.4 ¹ ₂
Damself	1088.1	9 - 93.4 ¹ ₂
Lake #5	1091.0 ¹ ₂	10mi. - 94.4 ¹ ₂
In	1091.3	
Osage Beach	1092.8	Columbia 123,1203.8
Dam - S.	1098.6	" - to city 1204.6 ₂
- N.	1099.1	" Broadmoor 1206.5 ¹ ₂
#52	1107.9	McBaine 1217.9
Aurora Springs	1109.1	Back to fork 1221.6 ¹ ₂
Eldon -	1111.1	Providence 1224.6
Mc Pleasant	1114.5 ¹ ₂	Back to K 1227.6 ¹ ₂
Ellerville -	1117.5	" to Broadmoor K 1235.2
#17	1121.8	Broadmoor K 1235.6 ¹ ₂
Hickory Hill -	1124.1	
Bragito -	112 - Midway 1246.1	
Jefferson City	1141.6 ¹ ₂	
#50	# 3	
Captains		
"		
" Bad -	1142.1	- N 1254.2
Bruep S	1142.8 ¹ ₂	Yellow Bay 1255.7
X	1143.2	" (bad) 1255.8
Furn. 2. m.D. 1143.4		
Wainwright 1149.6		
Zebbetts -	1155.9	
Mokane -	1162.9 ¹ ₂	
Hans Creek 1170.2		
Fulton #54 1176.7		
Kingdom City 80 1184.0		

and water-tube put in.

We then drove to Jefferson City, where we crossed the river (here without cars) and drove the river road to Mokane, - the last 6 miles over a terrible mud-road.

At Mokane, along road No. 1, a cut shows drift & other part the usual jointy clay.

We drove to Fulton on a much better road, & then on to Columbia.

We drove on Co. Road K. to McBane, but found nothing but non-fossiliferous loess-like stuff.

We then turned back to the fork and drove down to Providence, the latter part of it is hilly & rocky, - about the worst road we have

ever travelled. Maggie handled the car remarkably well.

Providence is desolate. The store is closed, the post office evidently doesn't operate.

The banks are also all overgrown.

We returned, - a hard uphill road, - greatly disappointed.

We drove to Columbia, and then went on # 40 (we first ran off on a parallel road a $\frac{1}{2}$ mile S.) and drove towards Bonville.

at 1255.7, on #40 E of
Brownville, Mo. There is

a big cut just at outlet
of bluffs. Yellow loess
about 12 ft. (See sample)
No fossils.

At 1255.8 at foot of hill,
yellow loess (about 10
ft. exposed) found a few
scattered fossils & some nodules.

The fossiliferous section faces the
valley, the other is further in.

This is just about at
entrance to the bluffs.

We then drove across a
broad bottomland to
Brownville, on the S. side of

the Missouri.

Sept. 19, 1935 Thurs.

a fine bright morning.

We drove west on # 65.

at 1321.6 (east of Manly) there is a long low cut (probably 400+ ft. long). This shows (not mile at Cedar Joint but nearly) 3 ft. of gray loess below 5 ft. of yellow loess above. No fossils see samples. The gray loess scattered has big root-tubules which are abundant above. Otherwise it is a uniform light grayish the yellow loess is slightly streaked with gray.

The line between the two is not sharp, but the transition is smooth.

dw
#169.

1391.4 ± 10 turns S.
Starting at K. 49
(Platte Riv 1481.1)
Lve. Marshall ^{265.} 1304.0
Malta Bend 1315.2
Grand Pass road 1319.6
Waverly ^{#24} 1323.6
S. end bridge ^{marks} 1324.
Waverly ^{#24} 1324.4
Dover - 1334.1
Lexington ^{#13} 1344.8
Bridge - S. 1345.2
~n 1345.8
Henrietta ^{Bluffs - 1350.8.} 1349.6
Richmond ^{anthracite} #10 1353
Eckhorn 1362 1354
Excelsior Spring 1369.
Linden #10 1388.1
#169 1394.5
#71 1396.5
#35 1409.5 ^{1/2}
Platte River 1416.5
#92 1417.0 +
End bluffy 1421 -
(Bog Hill)
Bridge - 2. 1423.7
w - 1424 -
Bethany

spudontes list
74.5 + 79.4 ^{1/2} 77
75.5 80.
76.5. 81.
77.5. 82.
78.5 ^{1/2} 83

#73 1425.9
Lavonville
Penitentiary 1426.6
Alchim 1449.6
Bridge - W. 1450.3
- 8. 1450.5 ^{1/2}
Bluff - ^{#45} 1454.2
Rushville - 1456.5
Halls 1461.1
R.R. sta. 1462.8
Clover Cliff 1463.
Close to bluff as 1464.
Cut ⁱⁿ ^{1/2} 1469.3
Steeper off 1470
Row 1
St. Jor. about 1472
#71 - #169 - 1474.8
Avenue City
Rochester -
Union Sta.
King City -
Stanberry -
#4 + #169 -
Albany
new Hamton

The country here is gently rolling and was evidently prairie. There seem to be no high bluffs in this side of the Missouri.

We drove N. from Waverly on #65. The road makes a long cut (about 600 ft) through the low bluff & exposes both loesses - similar to above. I took samples of both, no skulls, a few nodules in gray loess.

The west side is nearly uniform in curvature, but overgrown, while the east side consists of two parts and shows much exposed surface.

The bluffs are rather low, as far as I can see up & down.

152⁵
147¹
Grand River
1547.8¹₂

2
0
10
20
30
40
50
60
70
80
90
100

6 mi.

W. side

Tower 1489.2
#332493.7

Plattsburg 1499.8
#69. 1511.9¹₂
Cameron 1525.1

Mabel 15

Winona 1535.7

Patterson 1549.3

Bethany 1567.1

Eagleville 15

Lamoni, Ia 15

the river and as one would
would. No high prominent bluff, —
probably not much over 80 ft.
high.

The river has low on N.
side, other country is flat
far north.

I went down to flat below
the big bridge. The R.R.
station is 2 blocks above, &
near it (just before 1st block) is
a section of yellowish loess in
which I found a few shells.
The cut is short, about 10 ft deep
& the loess is mostly yellowish
(one mill sample ^{+ nodules}) but in part
below is hard & white, with

a few iron tubules, but no
fossils.

I walked up road S. from
R.R. station, up to town (this is
2 miles W. of #65). There is
a deep cut, 12-18 ft. all
the way up the hill. This
loess (similar to that on #65)
but no fossils.

I estimated the bluff here
to be about 80 ft. above
the river flat on which the
station stands.

We drove to Lexington & all
along there are cuts showing
the two loesses. In some cases
the line is sharp
No shells.
all evidently grain, some cuts 12 ft

The bluffs on the ridge along #13 are very low & sloping. In a low cut at 1351.1 $\frac{1}{2}$ I took sample of loess-like stuff.

near foot of hill on *69 at top there is yellow loess & below it gray loess, but no fossils. (As before)

at 1396.3

The bluffs join flat here.

#71 runs N. right under the bluffs to 1398.9 $\frac{1}{2}$ & then #71 cuts into

bluff trap valley.

It then runs up over the upland.

At 1427 on #73 E. a cut (10 or 12 ft) rather low down, shows yellow loess-like stuff. See sample.

No fossils

In higher place only 5 or 6 ft of loess? - pebbly & bouldery drift below.

We crossed at Albinia on toll bridge & drove N. on #59 towards St. Joseph, at 1459 the Bluffs bow East a half mile & run so to 1464.1 & soon again turn away about $\frac{1}{4}$ of a mile & gradually more, until at 1465 they are about $\frac{1}{2}$ mile away.

At 1467 a tributary valley comes in.

as St. Joseph (Key Hill) the Bluff again comes close.

Miami (n.s.) & Clayton str running E. & W.; a big cut of pale yellow loess - saw a
one fossil in upper bank
at cut perhaps 30 ft
lower than base of big
cut, above, 1 block W. of
~~Miami~~ ^{Clayton} on ~~Miami~~ ^{St. J.}
~~Heiss~~ ^{Heiss} (Russell str.) there
are two long cuts (on Russell
str. S. of ~~Miami~~ Clayton
(N. E. side only about 4 ft. ✓
expos - yellow loess took
cut. On W. side about
6 ft., gray loess with tubular
fossils. Took box of sand,
Russell as 1 block E. of #59

We drove out on # 71, & two good cuts, one at 1474.1 & the other near St. Joe, show plenty of lenses, but no fossils. This is well out & was probably prairie

A third good cut at 1474.5 (as least 15 ft deep) is the same. All show heavy gray lenses with iron tubules below & heavy yellow (stratified) lenses above. No signs of shells in any of these. - all on the upland well out of the St. Joseph valley basin.

At 1475.5 another similar cut, at 1475.9 $\frac{1}{2}$ another one.
All upland

Other cuts N.E. are similar. This is rolling upland country & was probably all prairie

M. 5:09 pm 89

Left 38631
at 7:55 am.

Sept. 20, 1935, Fri
Left Bethany, Mo. at
The N. E. soil erosion work
centers around Bethany, I
not saw many signs announcing
cooperation with the government in this
work.

The road between Bethany
and the state line (i.e. that
down to St. Joseph, in another
wedge Kansas topography)
at 1594.2 "the blues"
are sprouts again.

The country to and beyond
Lamoni is the same
roughly-rolling Kansas.
Fine country for erosion!

Bethany	1567.6 $\frac{1}{2}$	Lynn Des Moines	1717.1
Big Creek (4 th mns.)	1569.5	capitol -	1718.2
Eagleville	1581.9	# 6,	1722.2
State line	1590.6	Witchville	1733.2
Lamoni	1594.9	Newton	1750.5
David City	1601.7 $\frac{1}{2}$	Grinnell Pt.	1769.2
Grand River	1601.9	Brooklyn	1784.1
Weldon River	1604.7 $\frac{1}{2}$	Carrington	1789.5 $\frac{1}{2}$
# 3	1609.5	Victor	1792.3
Leon	1610.2	Ladora	1798.8
van West (road)	1619.8	Marys	1804.9
Weldon (road)	1621.4	Homestead	1815.5 $\frac{1}{2}$
Osceola	1630.5	Tiffin	1827.8 $\frac{1}{2}$
after J. C. Smith		Return to Greeley	1671.3
		Home	1836.6 $\frac{1}{2}$
		= 38900	

#65 1694.5

Indians	1700.
Middle River	1705
Des Moines	
Cook R.	1715.8
Brown	1717.0

On this rolling country there was evidently mostly upland dry prairie flora, with other types in the draws.

The country is less rolling north of Leon.

At 1623.7 - a low cut sloping up towards the north, is about 7 ft. deep. Top one or two feet are the crumbly loamy stuff (see sample). Below that a reddish pebbly modified drift (partly modified) rougher ^{begin} again at about 1625 -

91
Drove to a small river turning S. began after the a bit of prairie along RR (up) shores.

Elanus caeruleus fr.
Sorghastrum nutans fl.
Medicago sativa fl.
Corylus americana
Lepidium apetalum fl.
Silphium laciniatum fr.
other mallow fl.
Lepidium sativum fr.
Antropogon furcatus ^{few clumps} fr.
Salix humilis fl.
Rosa pratincola fl.
Prunus pensylvanica fr.
Silphium integrifolium fr.
Helianthus grosseserratus fl.
Engelmannia pinnatifida fr.
Vernonia — fr.
Aster laevis - br. fl.
Comandra umbellata fr.
Silene stellata br. fl.
Sympetrum ^{aberrant} fr.
²¹ *Agoseris annua* fl.
Panicum

Physalis — fr.
²⁴ *Bembix asperula*
Asclepias tuberosa fl.
Rhus glabra fl.
"Aristolochia" fr.
²⁸ *Oenothera missouriensis*
Apo gymnon canbyi fl.
³⁰ *Asclepias verticillata* fl.
Muhlenbergia setigera
³² *Achillea millefolium* fl.
Agrostis alba fl.
Carex cleopatra fl.
Carex spicata fl.
Cirsium discolor fl.
Helianthus annuus fl.
weeds

Further on:
Liatris scariosa fl.
Solidago nemoralis fl.

Shells from Shawmeton Hill, Ill. 93

Polygyra multilobata

" *profunda*

" *Pennsylvanica*

" *monadra*

Anguiformis attenuata

Discus —

Helicodiscus parallelus

Haplotrema concavum

Reticularia electra

¹⁰ *Euconulus fulans*

Pinnaea pyramis

Hawaria minuscula

Strobilops

Columella dentata

Vestigo

Gastropelta armata

" *contracta*

Succine ovalis

" *avaria*

²⁰ *Helicina occulta*

Carychium exiguum

Vallonia

Oct. 8, 1935 - Date,
8:20 am. 39080

Home	0	RR - (Interurban)	92, 3
No. Liberty -		RR	95, 4
Curtis Bridge	12.5	mainly - river	96, 4
Shenandoah -	15.7 $\frac{1}{2}$	" #218	96, 7-
*30-C. Rapids -	25, 3	RR	99, 1 $\frac{1}{2}$
#11 - Ave B. Back to #11 (29)	26, 5 $\frac{1}{2}$	Clairfield-RR -	107, 2
" " Town	26, 5 $\frac{1}{2}$	" Town -	107, 5 $\frac{1}{2}$
Center Point - Somer	26, 5 $\frac{1}{2}$	Nashua -	115, 0
" " Town	26, 5 $\frac{1}{2}$	Charles City #18 -	125, 5 $\frac{1}{2}$
Walker Mountain	22, 4 $\frac{1}{2}$	" main st.,	125, 9
Co. line (Buchanan)	34, 9 +		
Town N.	37, 8	#18 trans lift	130, 7
Co. line (Buchanan)	38, 8	Floyd -	131, 3
#283	40, 8	Cedar Riv. -	131, 6
Rowley Rd	43, 8	Floyd Fl. RR	132, 2+
Waples	49, 8	#9	142, 0
Independence #20	50, 5 -	#9 + #218	145, 9
Bryantburg -	58, 5	Orange	
RR crossing	59, 0	St. Albans #227	152, 2
Haferton -	61, 4	town E.	152, 8
Park - Orlow	63, 5	Town N.	154, 1 $\frac{1}{2}$
Delverin #10	65, 7	Stonyville #1 -	157, 6 $\frac{1}{2}$
#10 + #11 front	68, 1		
RR	70, 25		
Co. line (Brymer)	76, 6		
Waples Rd.	81, 0		
Rendlyn road	84, 0		
#63 -	89, 4		

We reached Stayville at about 2:00 PM. + I worked on my Bibliography.

triped is not a great success, even after you mark ~~it~~ the great losses.

Oct. 9, 1935 - Wednesday.

I worked all forenoon + part of afternoon. About 2:00 we drove to Hollandale, Minn.

They were still harvesting potatoes and wheat, etc.

The crop this year was poor. It was too wet (though not an exceptionally wet season). Last year was very dry and the crop was much better.

The Hollandale large drainage

Old road $\frac{5}{2}$, 8-8, 1 Osage. 99

Road to Greene 47.2 65.00 Washington

Oct. 10, 1935 - Tues. creamery

Start $\frac{1}{2}$ on Magnolia R, 107.7 (Bliss 119)
12:32 $\frac{1}{2}$ 39344. - RR. 151.02

RR. - Hwy. 2. 87.7

George 0 $\frac{1}{2}$ \$100 #11 89.7

#218 (middle) 5.4 $\frac{1}{2}$ 89.8

Osage $\frac{9+218}{2}$ 11.8 $\frac{1}{2}$ #10 east Belvoir - 92.2+

#9+218 $\frac{1}{2}$ 15.6 $\frac{1}{2}$ 8.0 #10 - Hwy. 2 - 96.6 $\frac{1}{2}$

Orchard road $\frac{255}{2}$ 19.6 Inter E - 97.2

Co. line - 20.6 Scott) - 100.0

Floyd R.R. - 25.5 #154 Mountain R 106.0

Floyd - 26.4 Co. line (Clayton) 108.0

#18 - 26.9 Strawberry Rd #13, 111.6 $\frac{1}{2}$

Charles City $\frac{1}{2}$ 27.0 $\frac{1}{2}$ #19 to Park - 113.2 $\frac{1}{2}$

#18 - 31.8 $\frac{1}{2}$ Hwy #10 - Hwy 3 - 117.1

Nashua - 32.1 $\frac{1}{2}$ Co. line (Belvoir) 117.5

Co. line 42.8 Hwy E. 122.4

Plainfield, Ia 46.1 Back to #13 124.9 $\frac{1}{2}$

" - RR. 50.3 Old road 129.7

Clarksville Road 50.6 55.3 Manchester $\frac{20}{2}$, 131.1 $\frac{1}{2}$

Hwy E. - 57.2 Magnolia R 133.1

RR. - 58.7 Ryan Stown $\frac{1}{2}$ RR. 141.1

No. 10 + #218 - 60.2 60.3 61.2 Co. line - 141.2

Waverly $\frac{218}{2}$ 61.2 Hwy W. - 144.9-

River - 61.4 Coggan $\frac{149.1}{2}$ 148.3-

RR. - 62.4 $\frac{1}{2}$ Central City Lake 153.3 $\frac{1}{2}$

#63 (middle) - 65.6 68.4 Co. farm - 161.4

Readlyn road $\frac{241}{2}$ 73.9 #161 - 165.4

Wapsie River $\frac{1}{2}$ 76.9 Marion $\frac{1}{2}$ road. 167.9-

Co. line - 81.3 #161 + 1 $\frac{1}{2}$ Co. C.R. 173.8+

creek - 83.3 Home 199.2

39543

2.55
2.00
2.55
2.7
6.2

Do not forget front with below &

Leave S. of Hazelville

Charles City, Ia

Nashua "

100

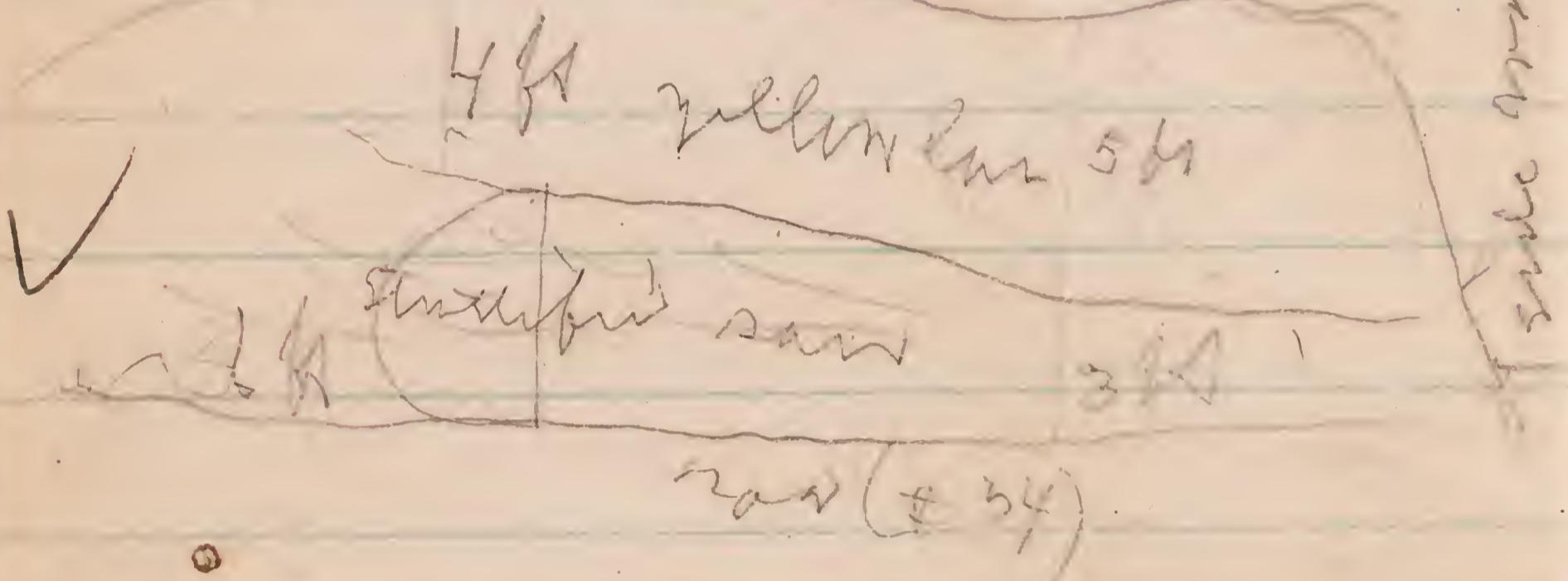
101

102

Iowa City oil. 60 ds

Oct. 13 - ^{Expan} Gas & oil, Iowa City 1,00
Oct. 14 - Gladstone - gas 1,43

2 m cut - N. side
(no cut on S. side)



cut. ² at 86.0 a cut showing sand
only. On N. side

cut ⁴ at 86.5 - a cut (or return 87.7) ✓

cut ⁵ at 87.5 - a cut - on return -

Cut 5 - about 10 ft. on N. side only.

Show some sand below & fragments
of shell in lower - a few
nodules. Mostly oyster shell

Muscatine

Muscatine

162,0

162,5

Home ~

201.3^{1/2}

4.5 - 4.2

103

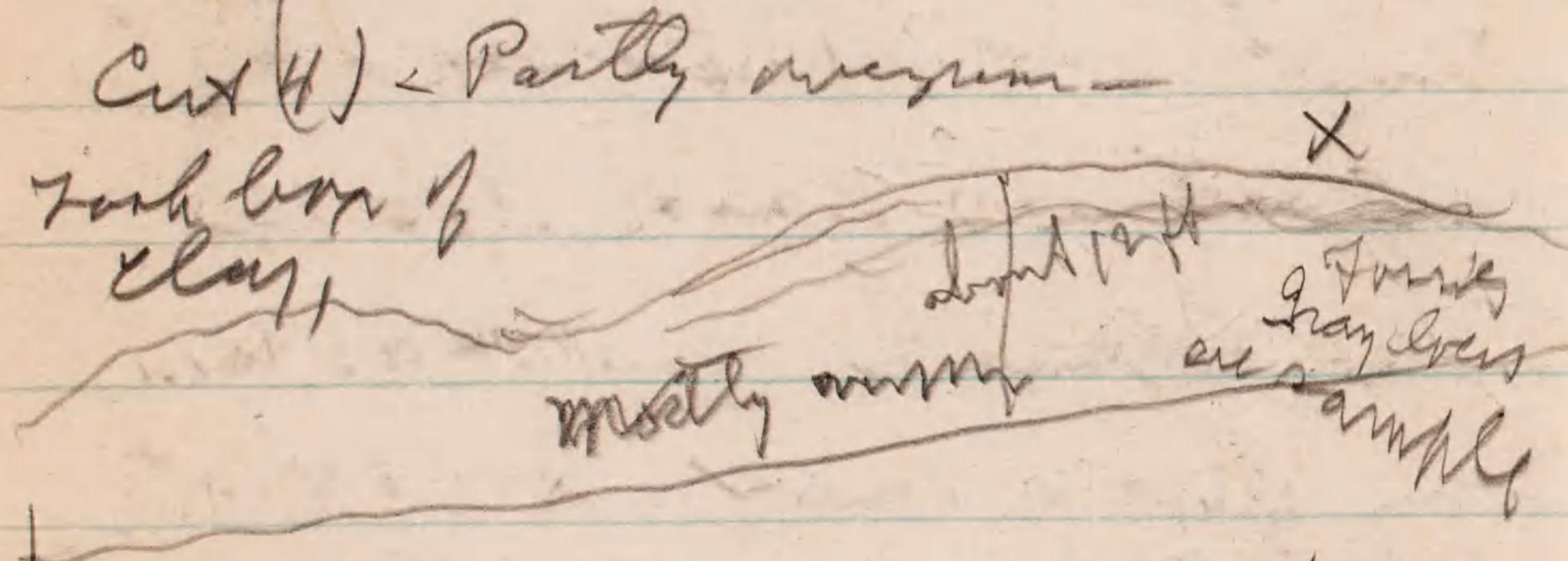
Home:
39790

Oct. 14, 1935, Tues. - To Gladstone, Ia.
Started at 6.22 S. M. at 3958^{1/2}

4.5 mi. E. + 2.4 mi. N. of Opanka, Ia.

Home	0	From N. on 94 100.2 ^{1/2}
# 2	26.7	102.2 - road N. - will cut
Mr. Pleasant #34	49.5	Turn back to 102.2
New London	57.8	at 102.6 a good cut
Danielle ^{PR. 1/2 mi.}	64.1	at 102.7 a dirt
Middleton	68.0	cross road.
West Burlington	73.2	past cut. ^{104.4} 105.8
Burlington ^{W. end 76.8} ^{94 1/2 E. end 77.2 1/2}	85.5	Anderson.
Opanka road		Turn E. 106.8 ^{1/2}
Bluff		Henderson. 109.1
2 m cut	85.9	R.R. 111.3
Turn back	87.1	From N. 112.5
Back to Opanka	88.7	Henderson Cr. 113.8 ^{1/2}
Gladstone		OC. 115.4 ^{1/2}
garnet	89.8	Anderson Cr. 117.8 ^{1/2}
Turn back	90.3	O. Cr. 118.7
Back to 9 1/2, 90.8		OC. 120.6 ^{1/2}
R.R. station	90.9	Cleels ^{sum.} 124.6 ^{1/2}
Opanka ^{return 95.7}		Turn N. 125.4
water bluff	97.7	Cherry R. 127.4
cut at 98.		Raynolds 137.7
		# 84 141.6
		Edgerton 146.6 ^{1/2}
		Ellerton Cr. 154.1 ^{1/2}

First stop at 2nd cut at 85.9 m'
2nd cut in cliff. A light
yellow loess (no sample) over dark
loess (5) (dark loam 2 parts)



as trip there are 2 to 2 1/2 ft
of reddish brown stuff. No fm

Fossils extend in gray loess
throughout clear up to ^{or reddish} brown

The gray loess has many iron
cloudings & some regular tubules,

has a few rather small
nodules.

The best part of the
1 gray exposure below X
is about 7 ft deep (the gray
part of it)

The first cut shows hilly
ridge 4-5 ft. & about
about as much rain

The Ogallala runs
along foot of bluffs to 89.4, then
bluff ends E - just before
Gladstone in a marsh.

From E at Gladstone - to dry
cut. Run from top of hill
down more than half way
+ now road is turned
northern (or west)

Gladstone

✓

gets lower at this end
Crops down hill
cut 1
top of hill 90.3

Risen up a few hills,
took samples & box of clay

N. of Gladstone the bluffs
run about 1 mile or less
E. of road. Not many more,

End at 98 - 2, 3 mi. S. of
Ogallala, made of bluffs
there was shows only drift.
Soil was above shows gray
loam. In lower (E) part
a great many fragile shells

E,
Gladstone, Took
soil sample & box of clay
gray loam fine textured

W.

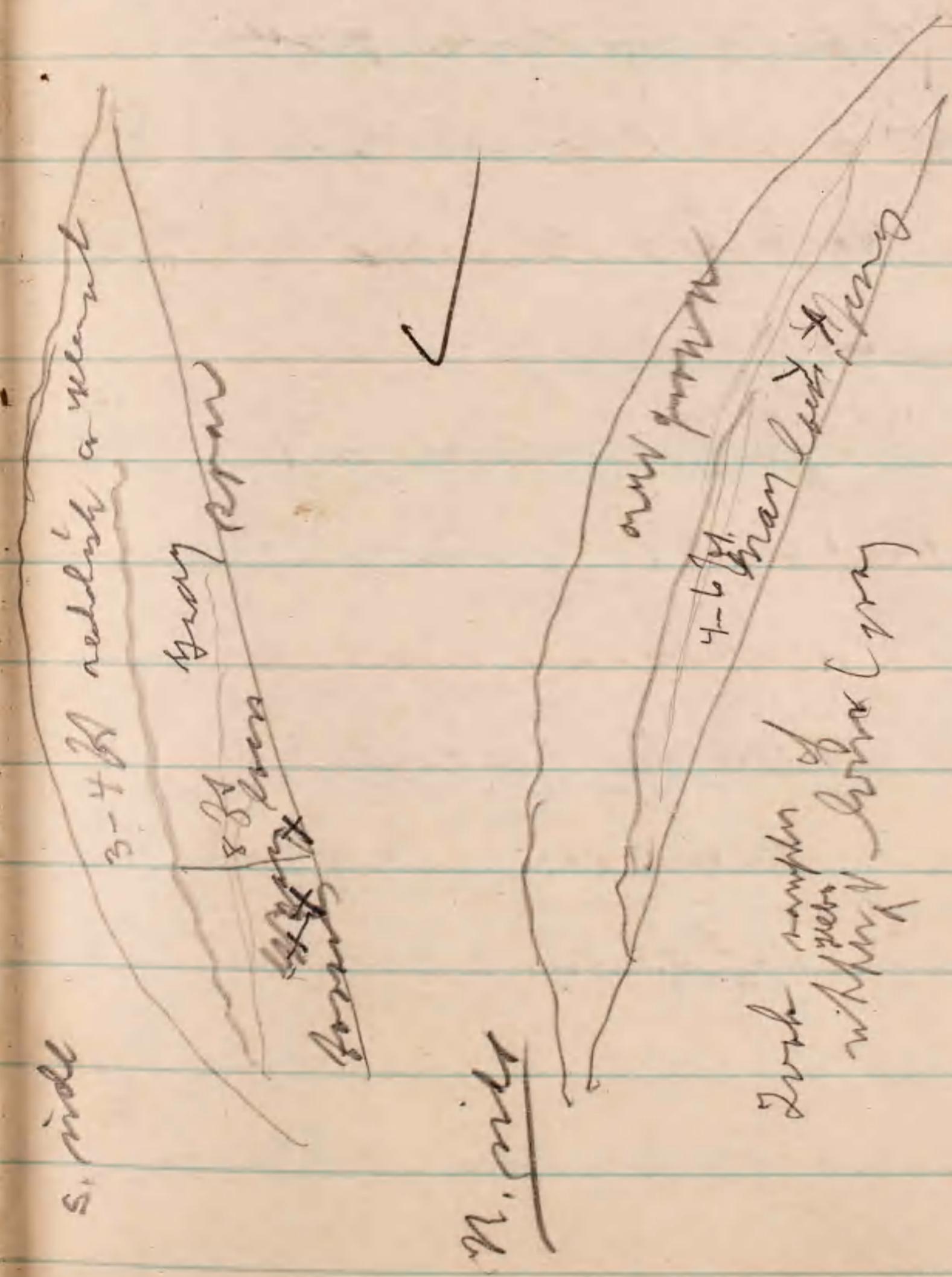
94.4 Mean road on flats
yellow brown
Damp
soil
soil
all earthy

94.4 Mean road on flats
at left there are only fragments of drift, but
at right a good many, much scattered
shells.

60
30

at 102.2 a side road runs west. A cut begins about 100 ft. S. & runs up hill (no west ways) The lower part is gray loam with rusty streaks & iron tubules & also scattered nodules.

Fossils are scattered all through as about X there was a boggy place or pond, where many small Lymanea. Farther up hill I saw no Lymanea, but far away, etc. appear.



next higher cut is
similar - 6 ft + gray
lens with reddish lumpy
Fossiliferous (see shells)
Next cut is also gray
lens.

Going back to 948

Last cut (no fossils)	103.5
Next (Dunley)	103.5 $\frac{1}{2}$
1 mi. west	103.6
Rough	103.7

1st cut is 11 mi. from road #948.

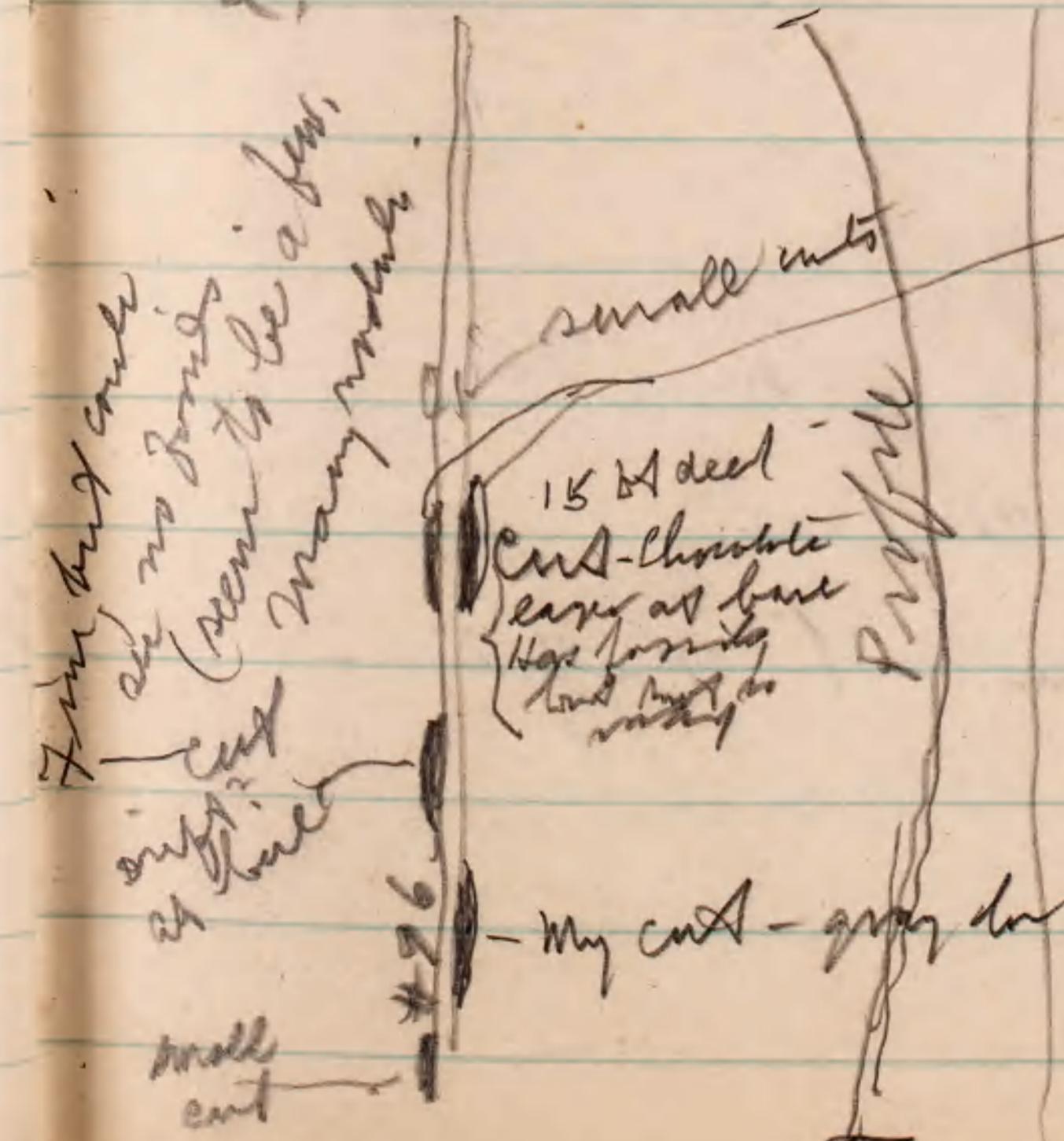
2nd cut is .5 mi. west

3rd " 10 $\frac{1}{2}$ "

4th (last cut), 10 $\frac{1}{2}$ "

Turns back to 102.2 m 948.

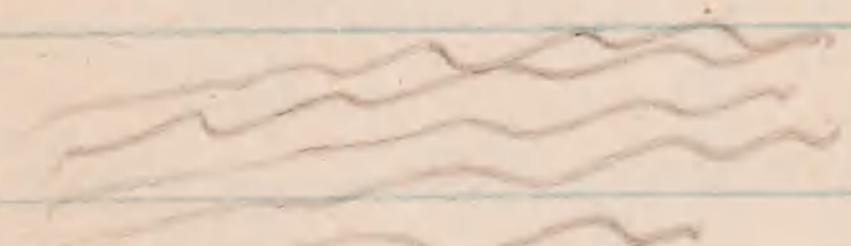
at 102.5⁶ a fine cut - 45 ft
long + about 10 ft out, on
E. side only. Gray lenses, with
yellow yellow, on left
The gray is very fossiliferous,
has nodules + elongated
tubules. Took sample + box.
There is a whole series of cuts
here.



- My cut - gray for

other cuts N. are mostly
overgrown.

The fine big cut at
104.4 on #98 is
over 20 ft deep (25?)
& is a yellow loam
with many limy or
weather mafces (some effs)



7 ovals are scattered
See last box (on label)
& 2 boxes of drift
also samples of
clay

cut at 104.4

so with

cut at 104.4

so with

X

✓

D. shank

6

Mud

Boxes of Coors clay for washing

1 - sack - not measured.

2 - last box $11\frac{1}{2} \times 8\frac{1}{2} \times 9\frac{1}{2}$ in

3 - gray box cut on E. side #94

Rich. - $10\frac{1}{2} \times 10\frac{1}{2} \times 8\frac{1}{2}$ in.

Look at last page after
notes of Oct. 19, 1936.

Fuel Muscatine 20

" Burley 25

90.0^{1/2} 88.1 7.95 Craypennite gas oil 1.61 38

Oct. 19, 1935 - Muscatine & Ia

at 39885 - 6:53 am.

Home 0 Cut - long - 88.4

West Liberty 17.1

Atalissa road 5. 21.8

Cedar River - 25.0

Inn 5. #38- 28.4^{1/2}28.7^{1/2}Muscatine bridge 38.7^{1/2}39.2^{1/2}

Inn 5. - at cliff. 41.1

Copper Cr. 44.2

Locas (low dry) 50.4

57.1 28.3 - graded, 57.5

Edwards River 58.8^{1/2}Keiths Bay - road 59.9^{1/2}59.9^{1/2}

Bluff (cut) cut 60.+

but end 60.1

#34. graded 79.8

Bluff (cut) cut 60.+

but end 60.1

#34. graded 79.8

Bluff (cut) cut 60.+

but end 60.1

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Bluff (cut) cut 60.+

but end 60.1

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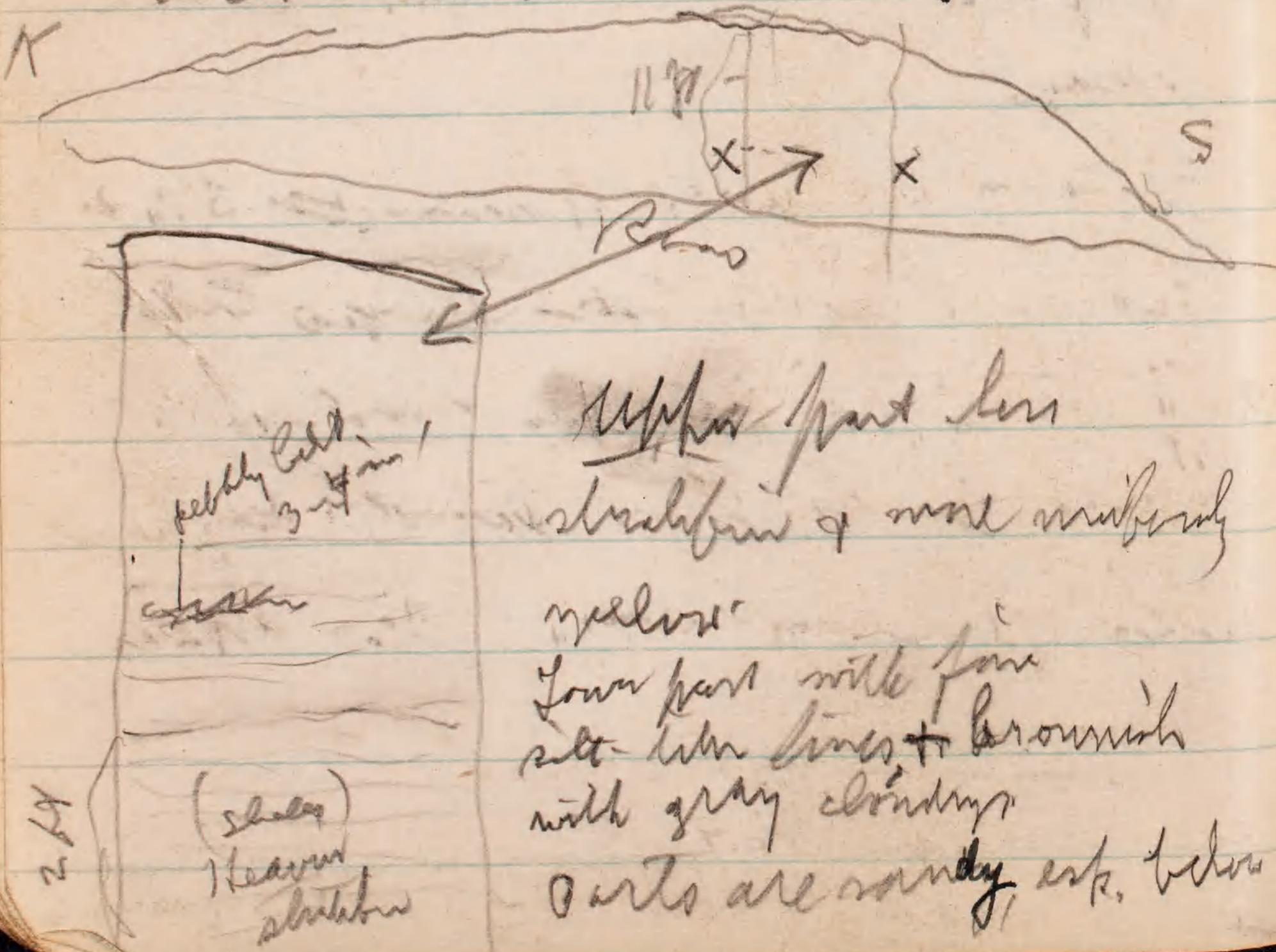
#34

We drove to Muscatine, crossed the Mississippi & went down the first road to south, - along the Bluff, we stopped at cut at 50⁴ mi., - 6.2 mile south of Cedar Creek.

Cut at 50.4 is about 120 ft. long.

Shows a little to S. E. side better.

This is along the road & is near base of Bluff. Wide bottom west. Bed hard & fine, between X's.

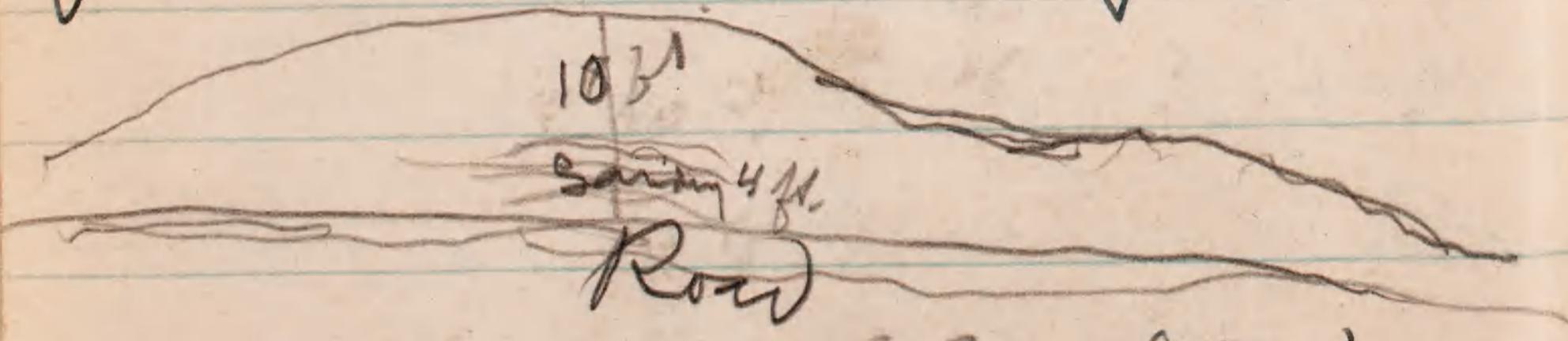


The gravel at base of bank may have been washed from top, or blown in very heavy storm. Also possible that this lower part was subject to overflow. It is about 20^o ^{less} ft. above bottom. Took samples (middle & near base) + box of cores (all from strip figured in lower part of other page).

a long cut just S. of road at 51.2 shows stratification like material, with many nodules & lenses. Cores from joint clay, but color of gray loess. No lenses.

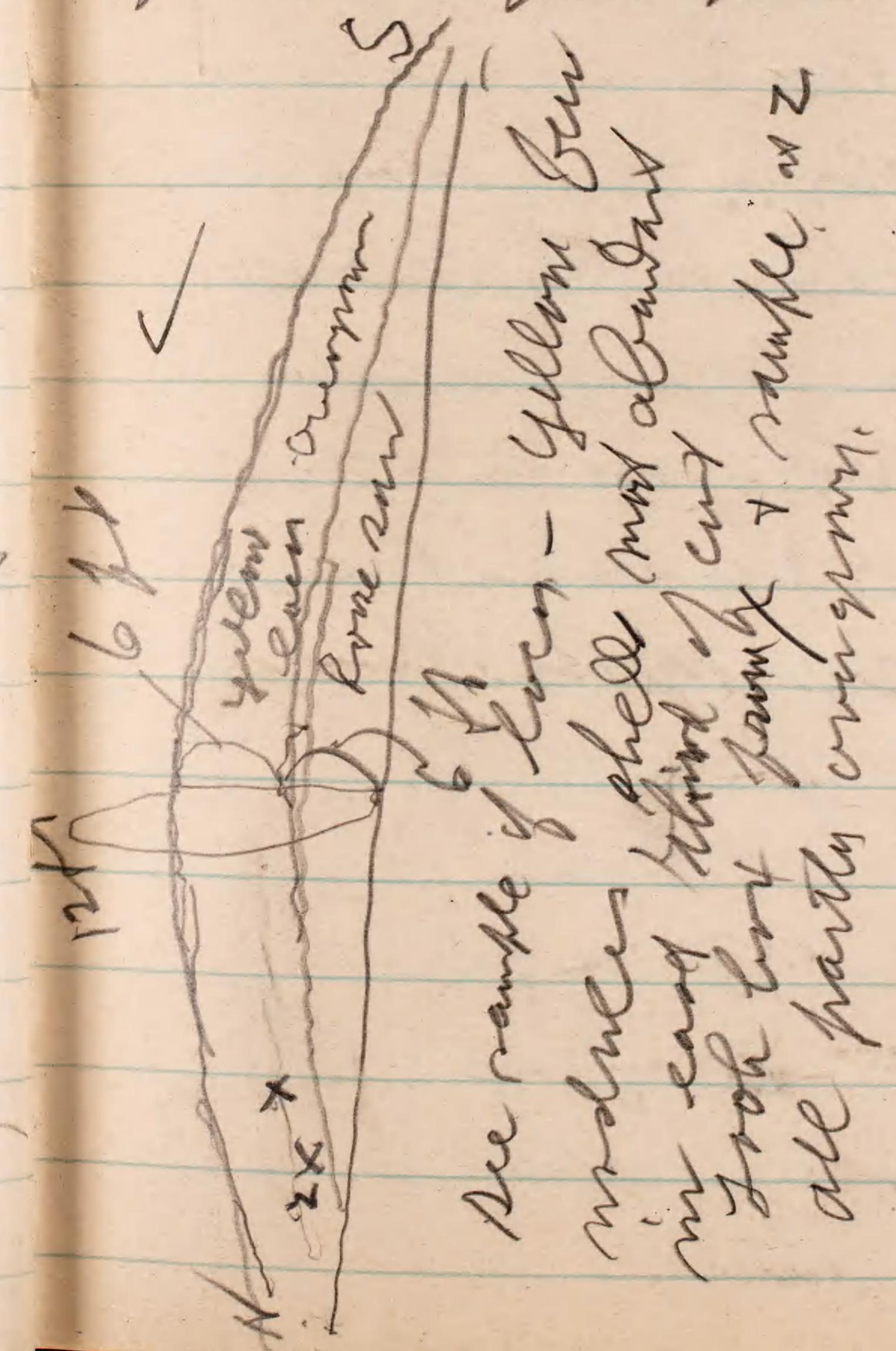
much gray
Lower $\frac{2}{3}$ stratified, upper yellowish

A big cut just as we enter
bluff at 60 mi. on #83 is
about 25 ft. deep, shows light
yellow friable loess almost to
base, but is badly worn
with Robinia, etc. on both sides
a few finds scattered all
through. Few rounded nodules
are seen, a number & pebbles
at 86.9, on low west "bluff" of
Henderson Cr. Yellow loess, in
place sandy.

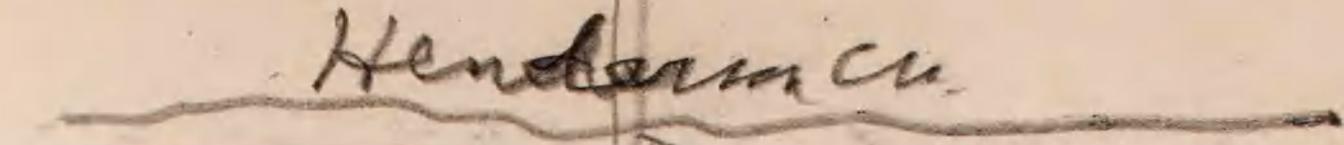


A sandy layer below. (dune)
Few scattered shells.

Cut at 88.4 m. It is on E.
side of #84 only,
about 360 ft. long & 12
ft. in deepest part



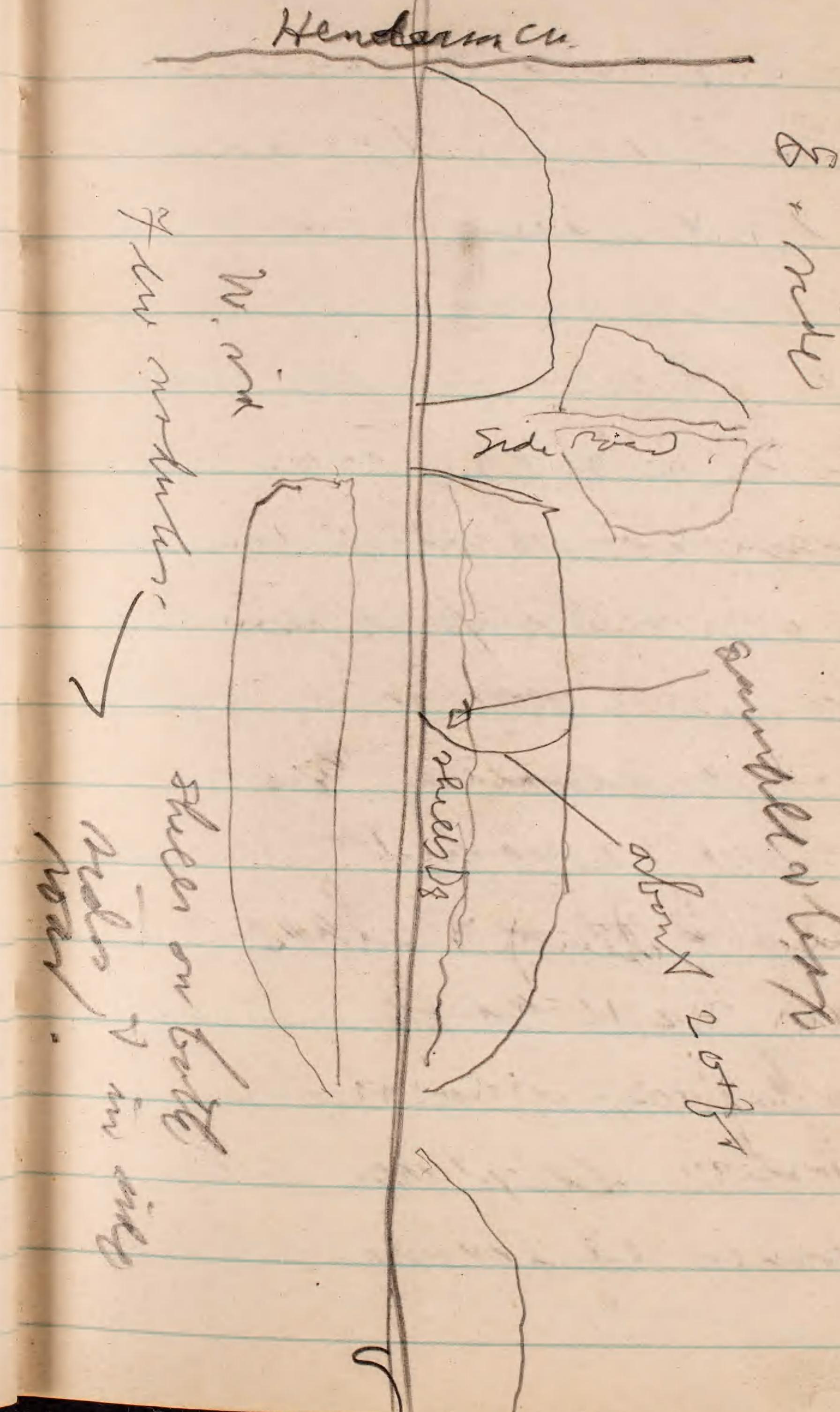
See sample of loess - yellow
moderately shelled sand about
one yard thick found & sample at N
end of cut took long time & partly
all partly covered over.

Two cut below Henderson Cr
at 88.7 on N. bluff is almost
exactly like the 88.4 cut.
Fossils, same and the same
(oolithic) 

at 89.2 mi. just S. of
Henderson Cr on ~~at~~ 94.
This is all a fine yellow
loam with fossils
scattered almost to top,
but most abundant
within 8 ft. of the base
Fossils nodules.

Took box, samples &
shells. A fine
series of cuts.

N.



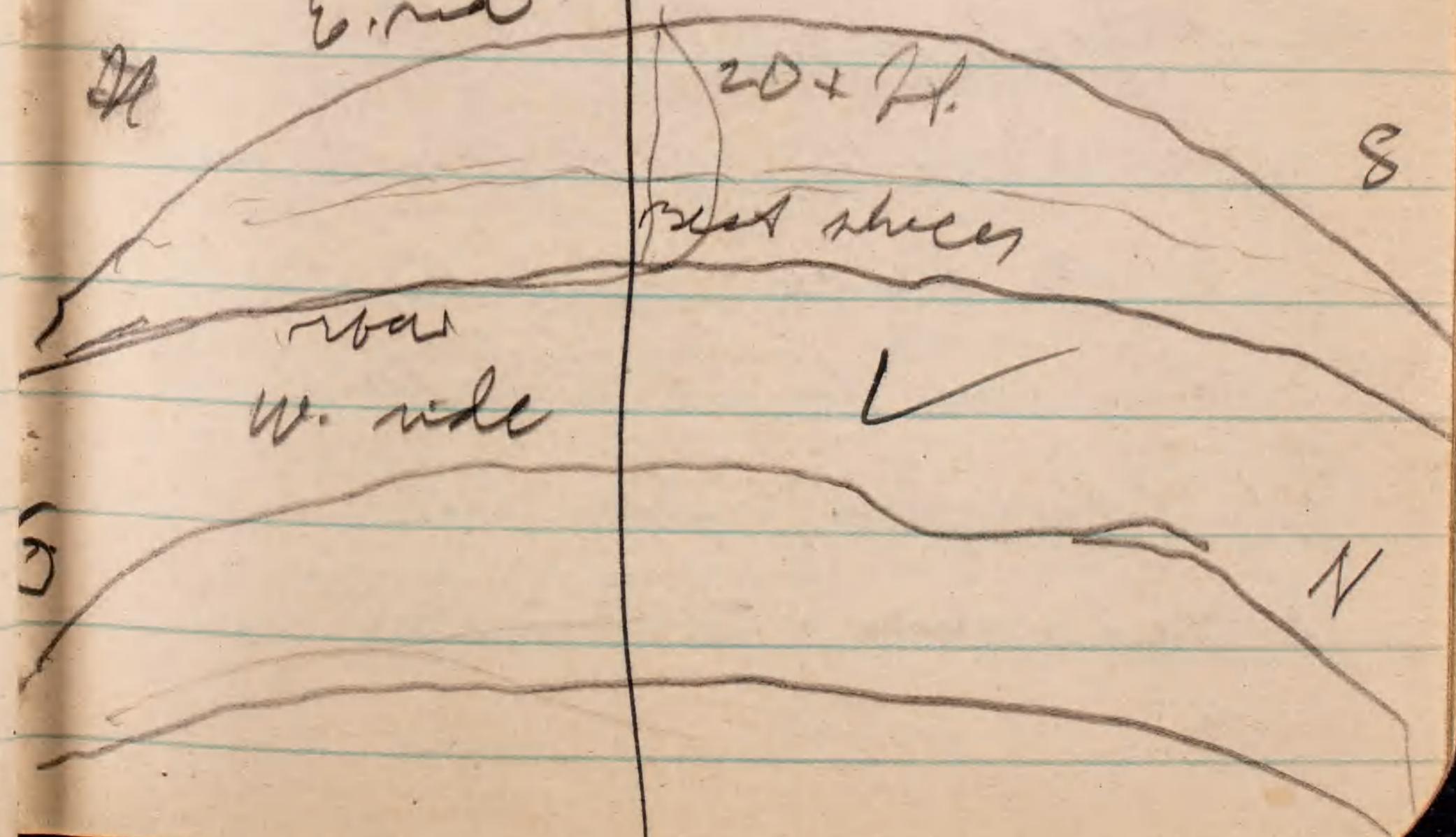
A fine, cut W, just began
2 small cut-shows
about same

at 89.8 $\frac{1}{2}$ - a cut down
hill on #94 toward S.
Gray loess with fossil
scattered trunks, & iron
standings & some tubes, (&
nodules scattered thru)
about 12 ft high on W.
side (better) & capping
with 3 or 4 ft of lobular
heavy yellow loess - no
fossils in yellow part.
Took a small set of
fossils only.

at 90.8 $\frac{1}{2}$ - a big cut begins
along #94 runs up & over
hill to S.

The loess is grayish &
mottled with iron.
Must be over 20 ft. deep
Shells well up, but most
abundant in first 8 ft.

Rose moderately, see box
& shells & sample
8. mds



at 90.4 $\frac{1}{2}$ (old 102.6)

✓ took cut & lay
near base
(6 ft)

at 92.4 (old 102.6)

✓ took two boxes of
gray loam, one
from middle of cut (#1) +
one in in middle of lower (5.) half.
We drove S. to #34 (several
good cuts below Ognawka Row)

or then via #34 to Burlington &
Mt. Pleasant + then home on #161
a bad drive, - Saturday evening.

Washed from boxes taken in
Illinois, Oct. 14 & 19, 1935

Oct. 14, 1935.

cut 4 on #34, E. of Burlington.

$11 \times 10 \times 9$ in. = .57 cu. ft.

old cut 1 - E. edge of Gladstone, Ill.

$11 \frac{1}{2} \times 9 \frac{1}{2} \times 8$ in. = .5 cu. ft.

side road off 102.2, gray loam. (w. of #94)

$13 \times 10 \times 8$ in. = .6 cu. ft.

sack, gray loam, old road, 2.3 mi. E. of Ognawka
(not measured, - less than cu. ft.)

gray loam, E. side of #94 at 102.6-mile.

$10 \frac{1}{2} \times 10 \frac{1}{2} \times 8 \frac{1}{2}$ in. = .542 cu. ft.

Last cut before dark (= 90.4 below, Oct. 19.)

$10 \frac{1}{2} \times 10 \frac{1}{2} \times 8 \frac{1}{2}$ in. = .542 cu. ft.

Oct. 19, 1935.

B. & Z Copper Co. - $9 \times 9 \times 8 \frac{1}{2}$ in. = .6 cu. ft.

at 88.4, E. side of #94 - yellow loam

$12 \frac{1}{2} \times 10 \times 8$ in. = .58 cu. ft.

at 89.2 - Big cut on #94 - yellow loam

$11 \times 11 \times 7 \frac{1}{2}$ in. = .525 cu. ft.

at 90.0 - Big cut - mottled loam.

$15 \times 8 \frac{1}{2} \times 9$ in. = .664 cu. ft.

at 90.4, old last cut (of Oct. 14) (last cut
above = 104.4)

$11 \frac{1}{2} \times 10 \times 7$ in. = .466 cu. ft.

Old cut (Oct. 14) at 102.6, II - at middle.

$13 \times 13 \times 7$ in. = .684 cu. ft.

Old cut (Oct. 14) at 102.6, #2 - at S. $3 \frac{1}{4}$.

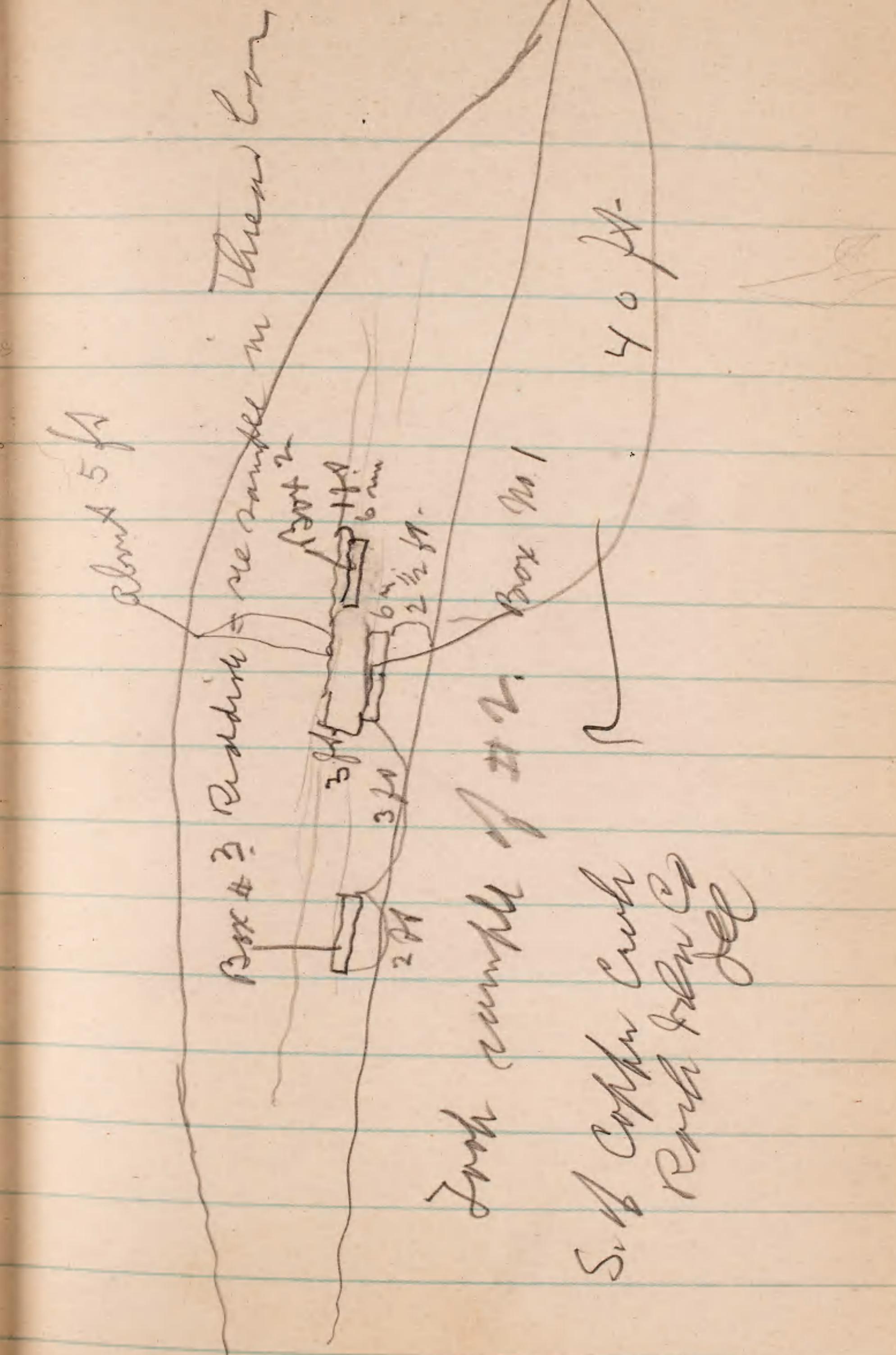
$15 \times 8 \frac{1}{2} \times 9$ in. = .664 cu. ft.

Nov. 13 1935 - Wednesday

Start 191.7 at 12:12 PM.

Home	191.7	Copper cr.	237.1
Bridge to Cr.	193.9	243.4 $\frac{1}{2}$	
CR & P. Ry.	199.6		
Fork, gas-tube	200.5		
Co. line	202.6		
West Branch rra.	203.8		
Road 5 (old detour)	206.2		
Y Bridge (Sullivan)	206.3 $\frac{1}{2}$		
Death crossing	207.2		
W. Liberty - onward	208.0		
RR	208.1		
W. Liberty $\frac{1}{2}$ to	209.3		
RR - overpass	213.8		
Atalissa	214.3		
Old Moscow rra.	217.0 -		
Cedar River -	217.4 -		
-	217.5 $\frac{1}{2}$		
Creek bridge	219.4		
# 38 Turn S. -	220.9		
	221.1 $\frac{1}{2}$		
RR (Internbr.)	228.6		
# 22 - White Way	229.1		
2 nd street $\frac{1}{2}$ to 230.3			
at detour	230.7		
Walnut St.	231.4 $\frac{1}{2}$		
Bridge on W.	231.5		
- E.	232.0		
Turn S - for of bluff	233.9		

East of Atalna several low
dunes appear, also S.



132

133

134

135

trip to Ottawa
July 30, 1936 - 8 hours. $\frac{1}{2}$ mile
Left at 8:30 am

8441.7

27.2

Home 441.7

Crawfordville - 474.6

Wayne - 479.4

Mt. Pleasant #34-492.5

Fairfield 515.2

Ottawa #63 539.9

Bridge 540.9

#273 (round) 555.5

Maple Park - 576.1

Braceville - 576.1

#63 (round) 582.7

Bridge (New) and #63 } 597.2

Ottawa 597.2

597.3

597.4

Agency 603.7

Baloria - 611.1

Fairfield - 622.4

Glendale

Lockridge 633.9

Mt. Pleasant 645.1

Cool this morning -66° F.

The day is clear. The country shows effect of drought. Pastures are burned at base. The corn is in tassel and the tops are badly burned in many places (grasses, shrub fields) - evidently the staminate flowers are ruined.

In some places on uplands the lower corn leaves are falling.

138

139

168.

Expenses (cont.)Sep. 18, 1935

Columbia (new pulley)	.50
Jefferson City, laundry	.30
Marshall, supper	.60

1.83
.52
1.35

Sep. 19, 1935

Marshall Hotel, room	^{1.25} }	1.70
" - Breakfast	^{.45} }	
At. 1384.3. garage		2.14
Dinner at Platte City		.50
Atchison, Kan. Toll		.30
Supper - Cameron, Mo.		.80 ⁵⁸

Sep. 20, 1935

Bethany room	^{1.00}	_{breakfast} ⁵⁰	1.50
Des Moines - dinner (Brown)		.75	
Gas & oil		1.35	
Supper, Newton		.06	

